NOV 20, 2015
#212

Apple Magazine™

APPLE PAY
MOBILE PAYMENTS
EXPANDS AS IT VIES FOR BROADER ACCEPTANCE

iPAD PRO
IS NOT FOR EVERYONE
5 THINGS TO KNOW ABOUT APPLE'S NEW GIANT iPAD



TERRORISM & DISASTERS
HOW TECHNOLOGY CAN LEAD THE FIGHTBACK

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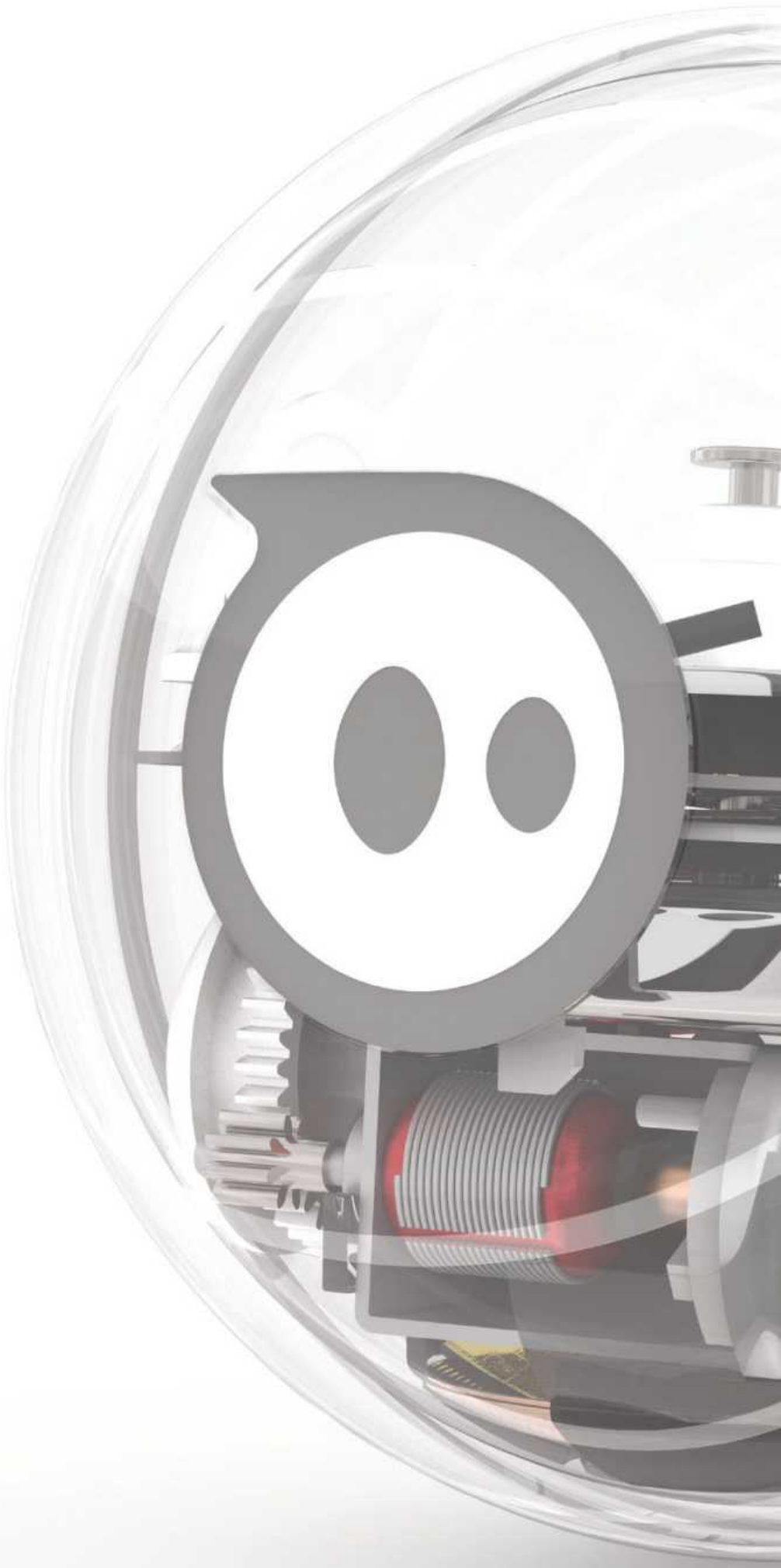
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SUMMARY

5 THINGS TO KNOW ABOUT APPLE'S NEW iPAD PRO



14

HERE WE GO AGAIN: PARIS ATTACKS MAY RENEW ENCRYPTION DEBATE



78

TERRORISM & DISASTERS: HOW TECHNOLOGY CAN LEAD THE FIGHTBACK



34

APPLE PAY EXPANDS AS IT VIES FOR BROADER ACCEPTANCE



60

Columns

EXPRESSIONS OF SOLIDARITY FOR FRANCE IN RED, WHITE AND BLUE **06**

YOUTUBE MUSIC IS A GREAT MUSIC-VIDEO APP _ IF YOU PAY UP **26**

US STARTUP CHALLENGES JAPAN TO GIANT ROBOT BATTLE **52**

GOOGLE ANTSY AS CALIFORNIA SLOW ON SELF-DRIVING CAR RULES **68**

'SPECTRE' STAYS ON TOP WITH $35.4M, 'PEANUTS' WITH $24.2M **104**

US ADVISED TO EXAMINE 'HACK BACK' OPTIONS AGAINST CHINA **112**

GIFT GUIDE: 6 WAYS TO GET STREAMING VIDEO TO YOUR BIG SCREEN **128**

TOP 10 APPS 84

iTUNES REVIEW 88

TOP 10 SONGS 118

TOP 10 ALBUMS 120

TOP 10 MUSIC VIDEOS 122

TOP 10 TV SHOWS 124

TOP 10 BOOKS 126

EXPRESSIONS OF SOLIDARITY FOR FRANCE IN RED, WHITE AND BLUE

Social media was awash Saturday in the red, white and blue of the French flag as people worldwide expressed their solidarity with a nation in mourning in the aftermath of the terror attacks in Paris.

Users of Facebook shaded their profile pictures in the French Tricolor, and on Twitter and Instagram, people posted vacation photos, teardrops and a peace symbol with the Eiffel Tower inscribed in the center as they expressed their grief over the carnage.

People also harnessed the power of social media in the search for their missing loved ones as Parisians desperate to get in touch with family and friends missing since Friday's wave of gun and bomb attacks posted heart-breaking messages and photos under the hashtag #rechercheparis - Paris Search.

Image: Leo Correa



Scores remain unaccounted for in the aftermath of the coordinated attacks on a rock concert, a soccer stadium, bars, restaurants and other popular nightspots that killed at least 129 people.

"Waleed is missing," read one post. "We last contacted him at the match, Please share & contact me if u have any info. #rechercheParis."

"I've been looking for my cousin since last night," read another. "He's 25 and 1m75. He's called Younes. #rechercheParis."

The photos and messages garnered hundreds of retweets from users eager to help in the search for survivors.



Across the globe, people joined in to offer sympathy and share a nation's pain. Many posted the poignant video of the Eiffel Tower - the beacon of the City of Light - going to black in memory of the dead.

Some of the world's most recognizable buildings and monuments - the Sydney Opera House, the Christ the Redeemer statue in Rio, One World Trade Center in New York, the Mexican Senate - were shaded in the colors of the French flag.

Sports teams also expressed their solidarity. The Washington Capitals splashed the red, white and blue of the Tricolor across the team's ice rink before Friday night's game against the Calgary Flames. "The National Anthem is playing, but tonight our thoughts are with Paris," a caption on the Capitals Twitter feed read.







The images and sentiment, shared under the hashtags #prayforparis or #parisattacks, mirrored the outpouring of emotion that followed the Charlie Hebdo attacks 10 months ago.

One of the most shared was a peace symbol by Jean Jullien, a French graphic designer living in London, that showed a stark image of the Eiffel Tower rising in the center of a peace sign.

Jullien said the design came to him by simple association of Paris and peace.

“I was overwhelmed that so many people used it,” he said in an e-mail to the Associated Press. “It’s a communication tool for people to share their solidarity. It’s a message for peace.”



Image: Clive Gee


5
THINGS
TO KNOW
ABOUT
APPLE'S NEW
iPAD PRO

The first thing you need to know about Apple's iPad Pro is that it's, well, giant.

About an inch longer than a standard sheet of paper, the Pro features a 12.9-inch diagonal display, giving it 78 percent more surface area than the 9.7-inch iPad Air 2. At nearly 1.6 pounds, the Pro is heavier than current models, but not much more so than the original iPad from 2010. There's room for four speakers, compared with two on other iPads.

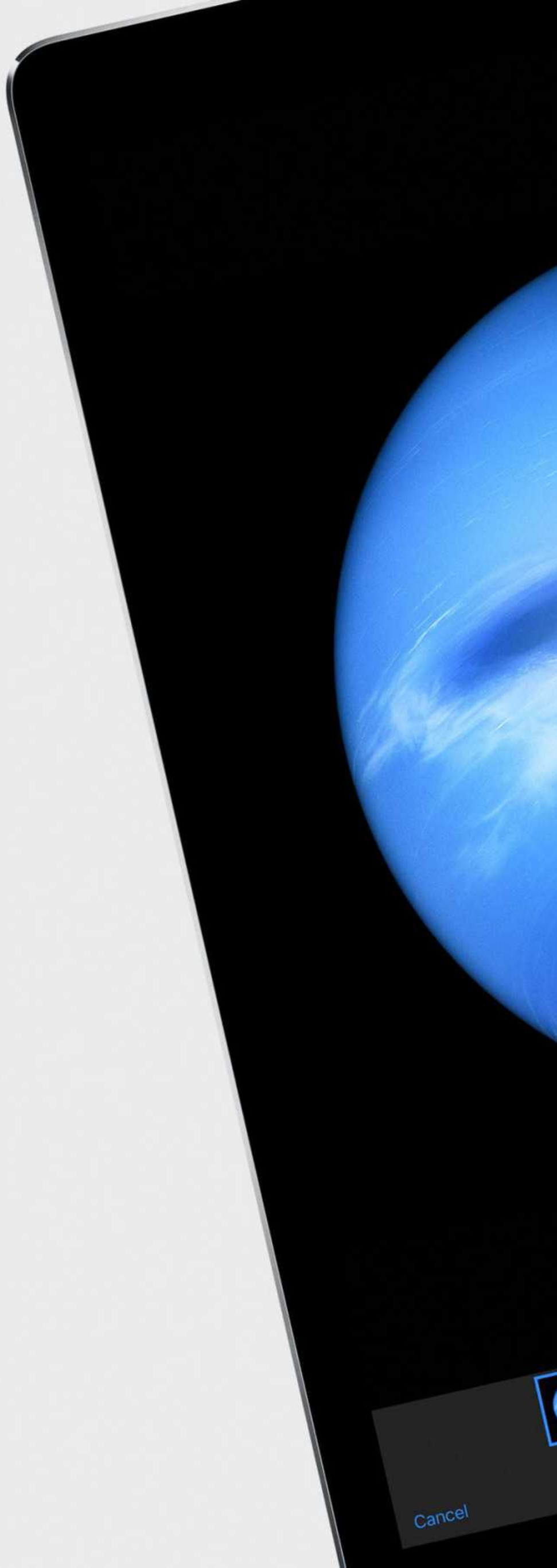
The price is supersized, too. The iPad Pro starts at $799, compared with $499 for the standard-size iPad Air 2 and $269 for the cheapest iPad, the 2-year-old iPad Mini 2. A physical keyboard from Apple costs $169 extra, and the Apple Pencil sells for $99.

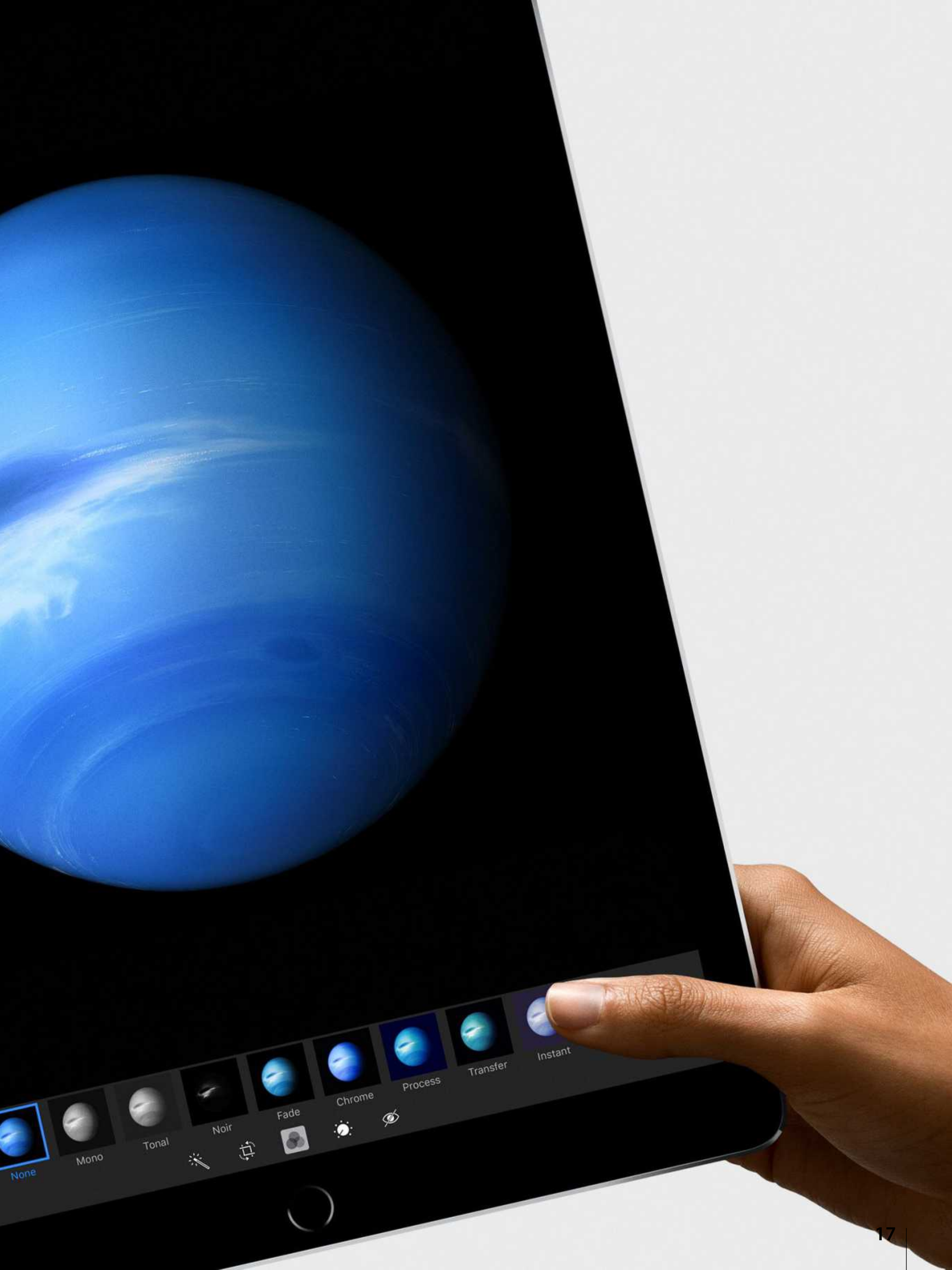
Designed with professionals in mind, the Pro is Apple's way of reaching new consumers as sales of iPads - and tablets in general - decline. Here are some things to know as the Pro starts appearing in stores this week:

THE PRO ISN'T FOR EVERYONE

Many people will be fine with the standard iPad Air, while others will prefer the portability of the smaller iPad Mini.

The Pro is for those who need the larger screen, including people who write, build spreadsheets or edit graphics and video rather than primarily reading or playing games. These are people who might otherwise be lugging around a laptop. If you're using a tablet just to watch Netflix, the Pro might be overkill, though movies and TV shows look and sound nicer.



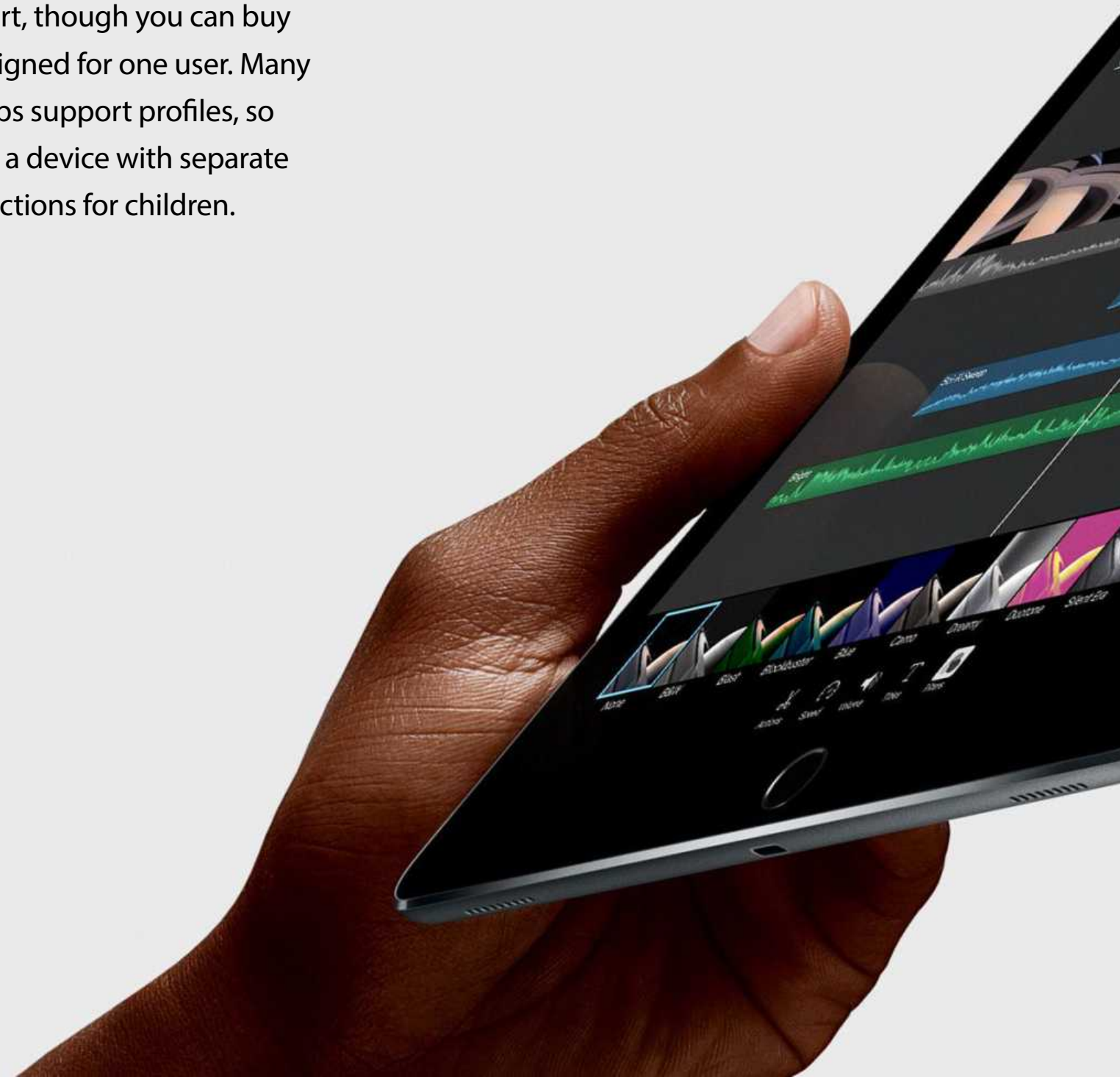

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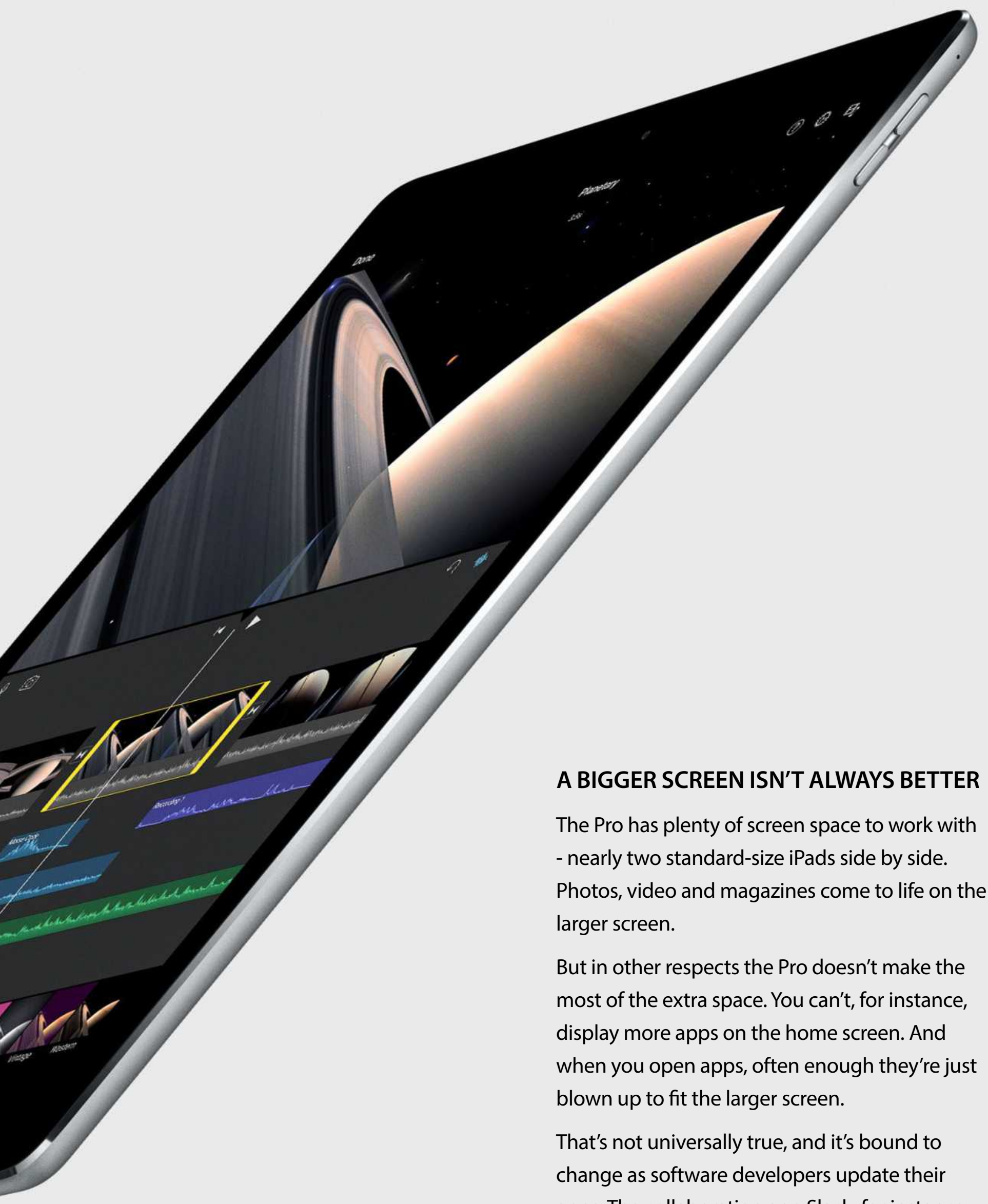
IT'S NOT A LAPTOP

For writing, the Pro features Microsoft Word and Apple's Pages. But do you need a tablet for that? The desktop version of both apps can do far more, including keeping multiple documents open at once. The Pro is more for those times you want to leave the laptop behind, but might still need to write an email or touch up a report. The physical keyboard makes all that faster.

Where the Pro has the potential to excel is with artistic apps. Doodling, sketching and painting work better with fingers and a stylus than with a keyboard and trackpad. But apps on tablets have streamlined features designed to let you complete specific tasks quickly. More advanced features require a PC.

The iPad lacks a USB port, though you can buy an adapter. And it's designed for one user. Many other tablets and laptops support profiles, so many people can share a device with separate settings and even restrictions for children.





A BIGGER SCREEN ISN'T ALWAYS BETTER

The Pro has plenty of screen space to work with - nearly two standard-size iPads side by side. Photos, video and magazines come to life on the larger screen.

But in other respects the Pro doesn't make the most of the extra space. You can't, for instance, display more apps on the home screen. And when you open apps, often enough they're just blown up to fit the larger screen.

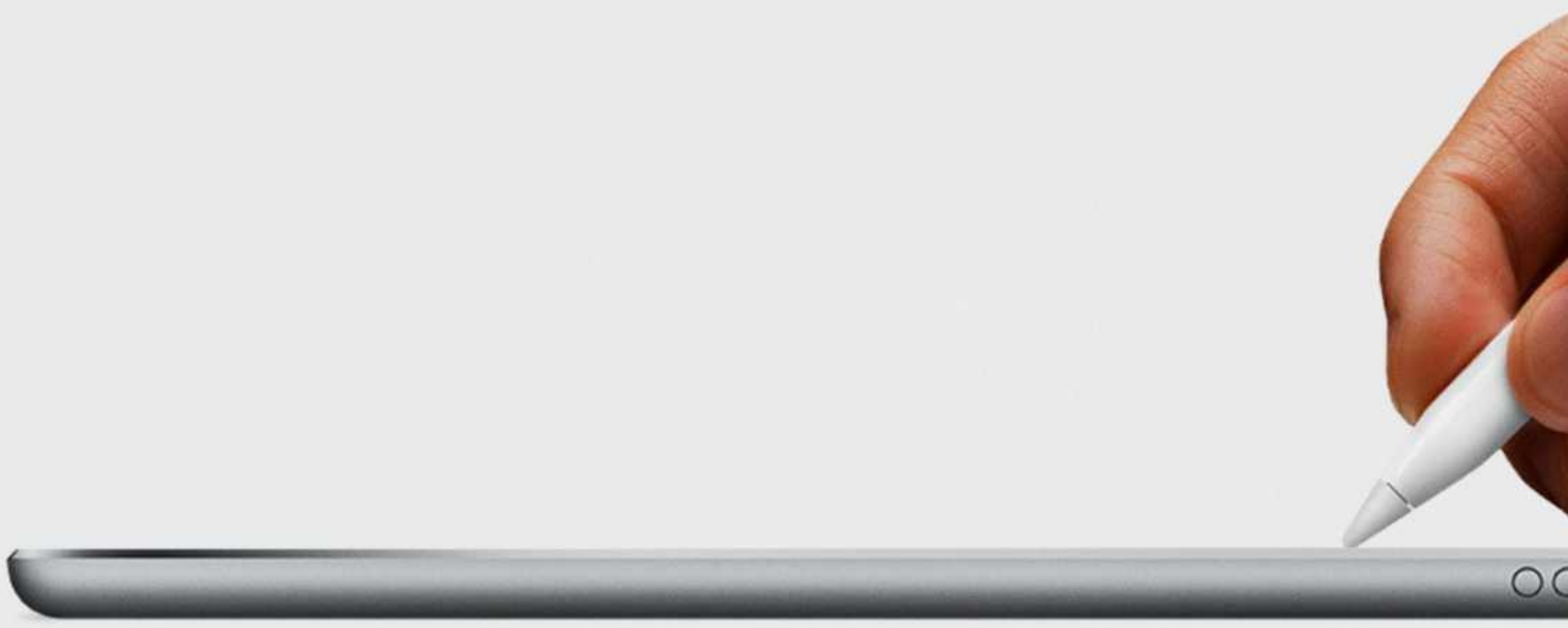
That's not universally true, and it's bound to change as software developers update their apps. The collaboration app Slack, for instance, creates a new column with menu options on the Pro. But for now such apps are more the exception than the rule.

GET THE KEYBOARD AND STYLUS

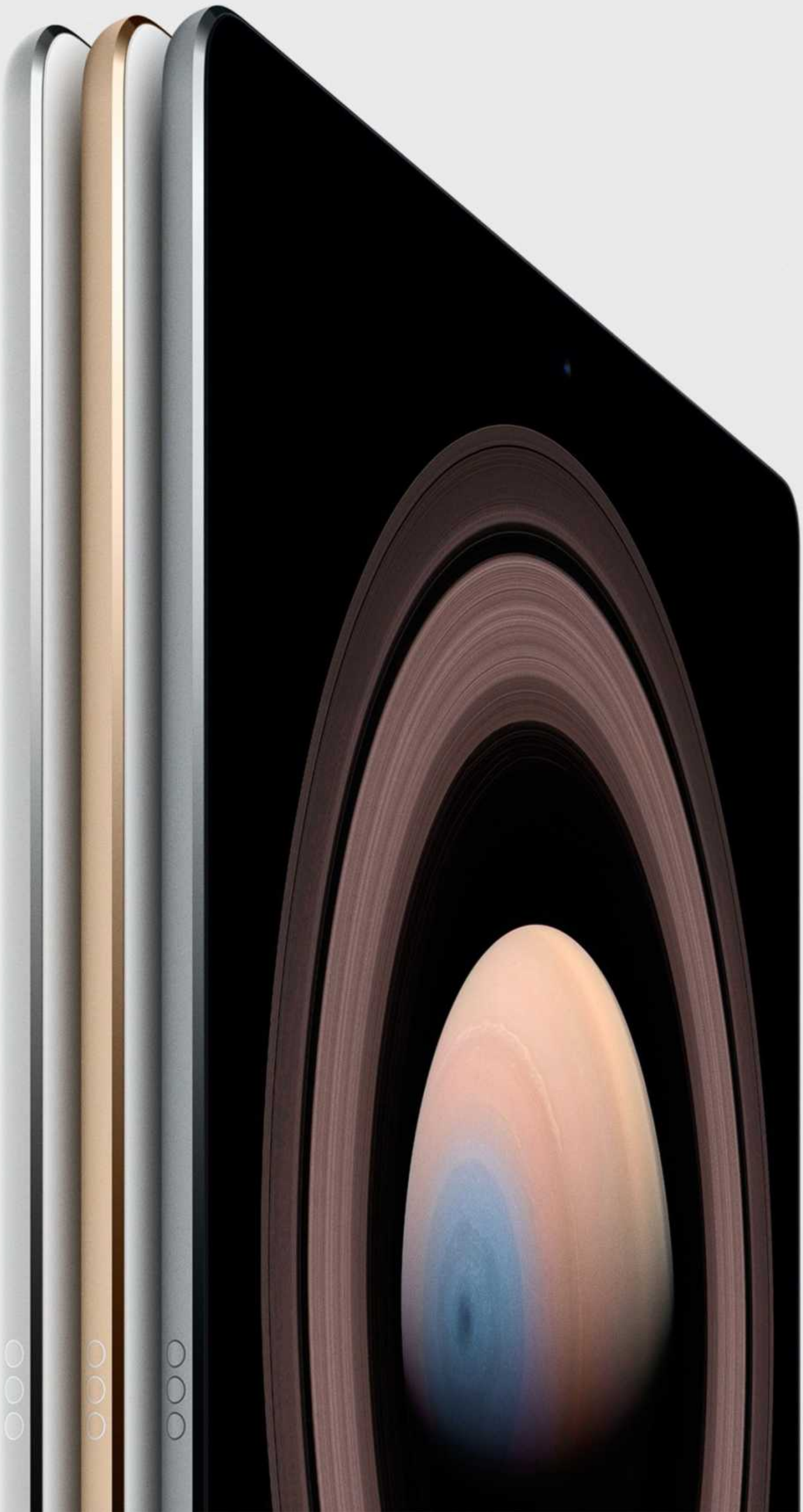
Although they'll push up the cost, you'll want to buy the Apple Pencil and a physical keyboard. Many of the Pro's unique characteristics require one or both. Otherwise, you're effectively buying a crippled device that's capable of so much more with the right tools.

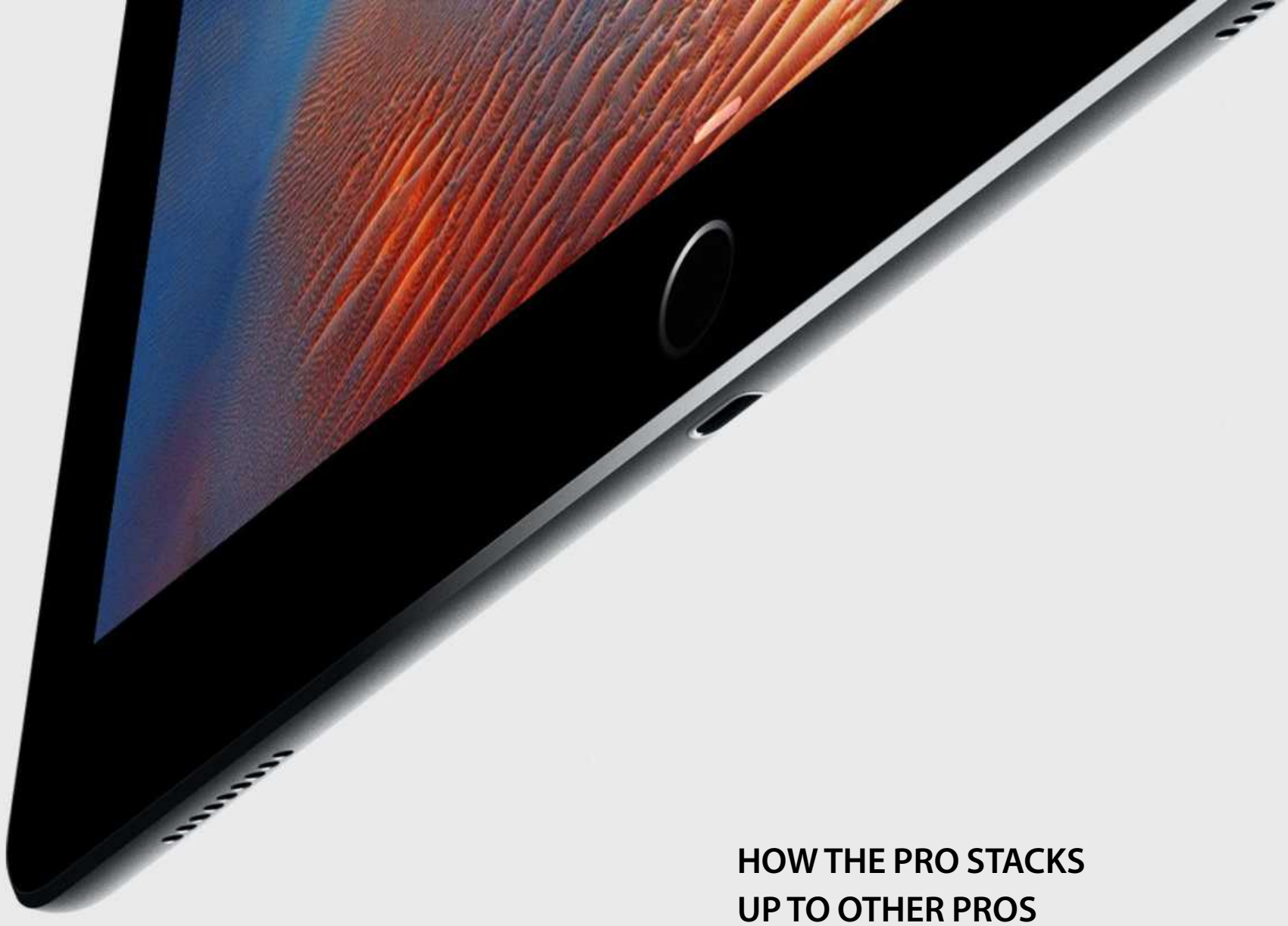
Apple's Smart Keyboard serves as both a cover when stowing the iPad and a kickstand when using it, though you can't adjust the angle. Typing is much easier with a real keyboard, and having it restores many shortcuts common on Macs, such as command-C for copy. The keys don't feel as natural as they do on a laptop, but that could simply take more than a few hours of testing to get used to. One nice touch: The keys are completely sealed, in case you spill a drink on it.

The stylus, meanwhile, resembles a digital pencil that, for instance, can do shading when held at an angle. (Most draw only with the tip.) One neat trick: Hold two fingers on the Notes app to unveil a ruler, and use the pencil to draw a straight line.









HOW THE PRO STACKS UP TO OTHER PROS

Microsoft's Surface Pro comes closer to being a laptop replacement, particularly with a new keyboard cover that's studier and feels more natural on the lap. It runs standard Windows 10 apps and displays many windows at once, not just two. On the other hand, not all of those apps are designed with touch controls in mind, something that's fundamental to tablets.

Another alternative is Apple's "new" MacBook laptop - the minimalist model released in March, without Air or Pro in the name. It doesn't have a detachable keyboard, but the overall unit is light and thin, more like a tablet than a laptop.

Generally speaking, the Pro is designed primarily to extend the iPad's touch-optimized experience to office use; as part of that compromise, it just can't do everything a Mac can. So you can be disappointed and consider it a laptop-wannabe - or you can look on the bright side and think of the Pro as a giant iPad with benefits.

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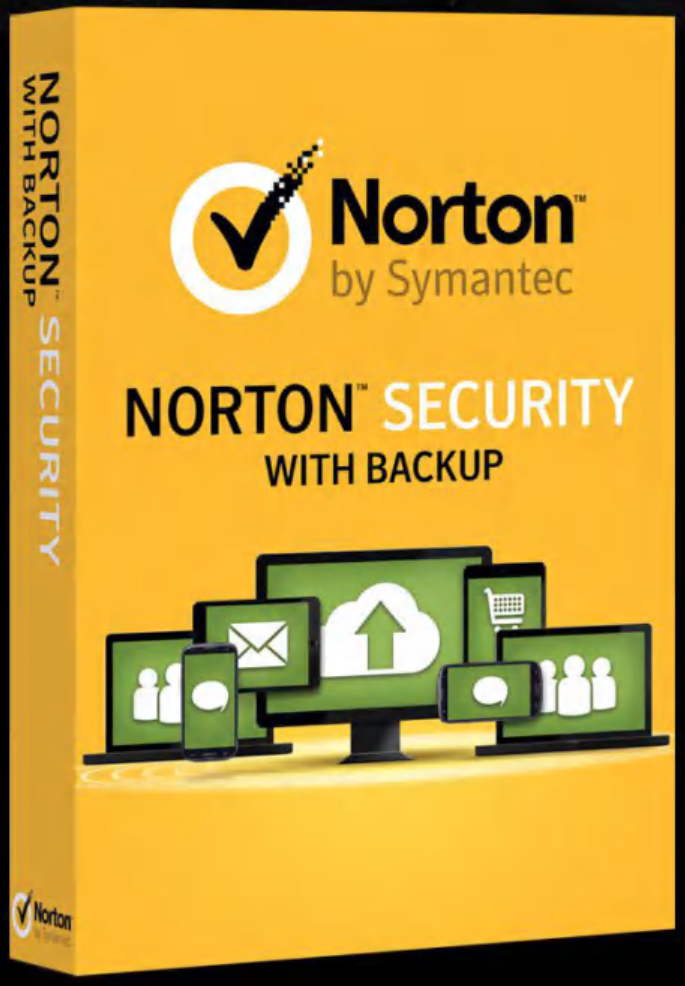
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YouTube



YOUTUBE MUSIC IS A GREAT MUSIC-VIDEO APP _ IF YOU PAY UP

If you were going to reinvent MTV for a mobile generation, you'd probably come up with something like YouTube Music. It's a video-first music service that also plays in the background like you'd expect a music app to do. That sets it apart from other music apps out there, many of which give you a choice of videos or songs, but not interchangeably.

But while YouTube Music offers a lot of interesting features, most of them require a subscription to the new YouTube Red service, which will set you back $10 a month - $13 if you sign up through YouTube's iPhone app. Without Red, YouTube Music will play ads similar to what you see on YouTube proper, and several other functions won't work at all. YouTube is offering new users a 14-day free trial to Red, but to continue commercial free, you'll need to pony up.


Music
YouTube



YouTube Music is first and foremost a music-video app, albeit one that doesn't forget that most people will be using it on their phones. For those times you'd rather just listen instead of watching, you can hit a toggle that switches the app to audio-only mode, which turns off the video playback and swaps in a still image. You can even turn off the screen and keep listening while you do something else.

But here's the first gotcha: Audio-only mode only works for paid subscribers. I also found the audio-only toggle worked far better on a Samsung Galaxy Note 4 than on an iPhone 5, where it introduced a jarring pause.

You can similarly shrink the video to a little strip at the bottom of the app, which keeps it playing in a cropped format while you look for the next video. The app will even keep playing if you switch to other tasks, like checking email - although again only if you've paid up for Red.

There are some curious omissions. For instance, there's no easy way to create a playlist to queue up a bunch of videos in a row. The app does offer "song stations," which queue up videos from artists related to the one you're on. You can toggle the range of the resulting mix with options like "less variety," ''more variety" or "balanced." I started a station starting with Passenger's "Let Her Go" and so far I'm pretty happy with the "balanced" playlist it created, which included "Counting Stars" from OneRepublic and "Burn" by Ellie Goulding.

You can also play all of the videos you've thumbs-upped, which turns that grouping into a crude sort of playlist.





YouTube Music is far less cluttered than competing services like Apple Music, which has more lists and tabs than you'll know what to do with. YouTube Music keeps the tabs to three - home, hot (trending videos), and thumbs up (your favorites).

Home offers recommended videos, and it's easy to find something playable. Your mileage may vary with the "hot" tab; it didn't do much for me, although I'm usually a bit out of sync with the mainstream.

Finally, there's one more fun feature, which is called "offline mixtape." It automatically saves 20 audio-only songs for you based on your tastes, for when you know you're going to get spotty reception. I wish it saved the videos instead of just the audio, but this will keep the tunes turning in a pinch. Alas, offline mixtapes are disabled in the ad-supported version of YouTube Music.

The app makes Google's $10-a-month music subscription a lot more attractive. Paying up not only unlocks features in YouTube Music itself, it also gets you ad-free playback on the main YouTube app, access to Google Play Music, and, down the road, some original material from YouTube stars.

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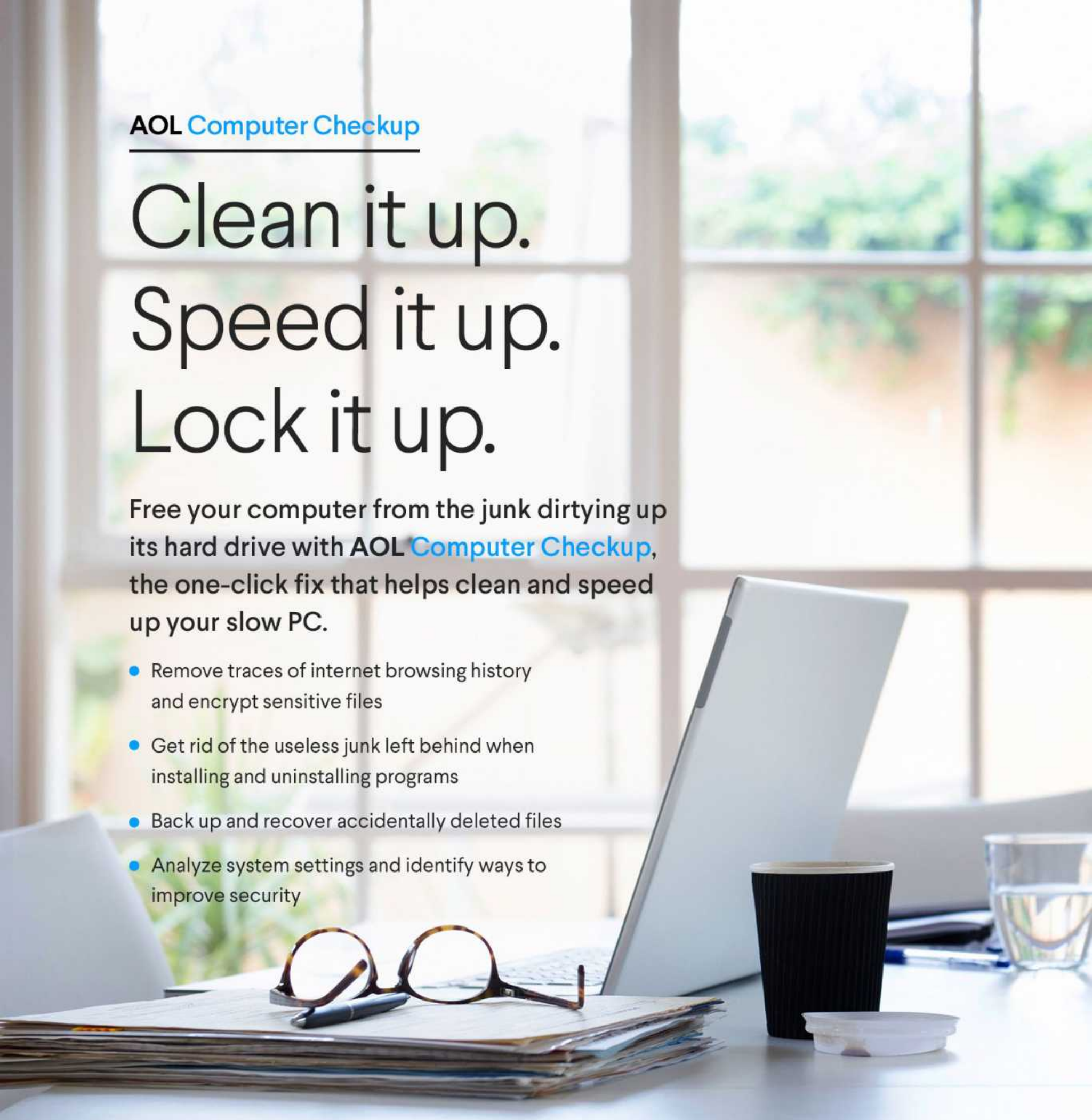
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TERRORISM & DISASTERS:

HOW TECHNOLOGY CAN LEAD THE FIGHTBACK

Devices and apps:
potent weapons against terror





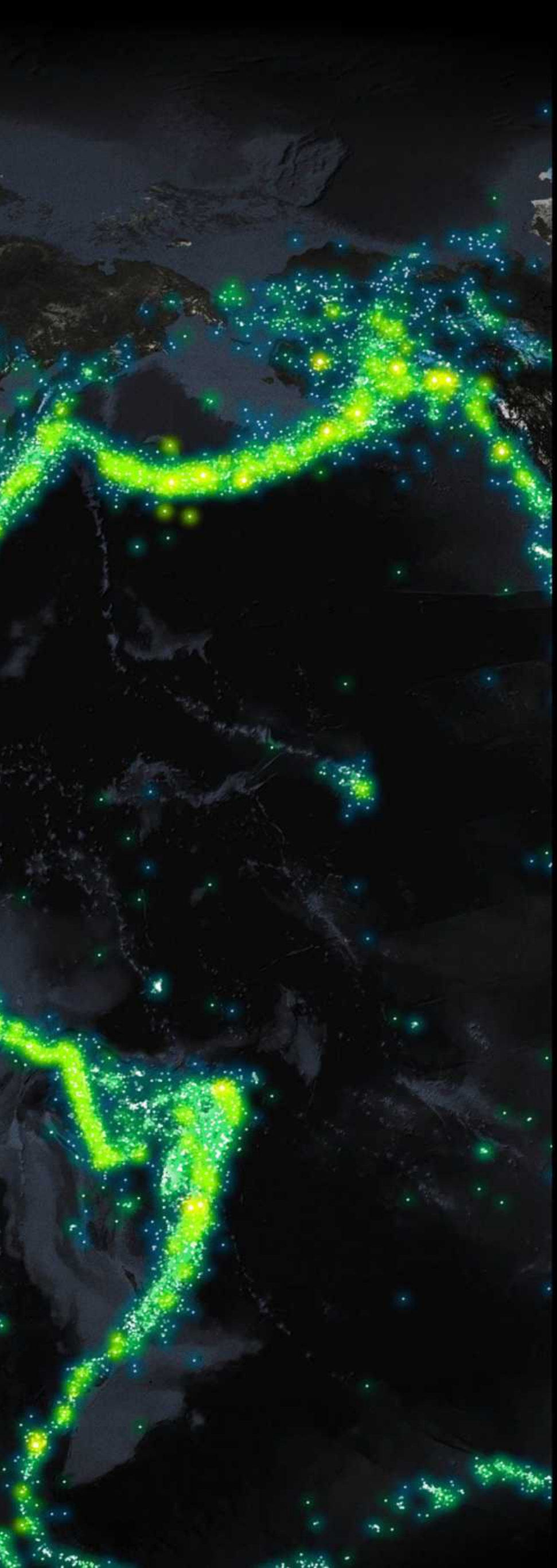
Image: Suzanne Plunkett

Headlines around the globe have been dominated by news about **the series of co-ordinated terrorist attacks in Paris on the evening of November 13**. Having killed over 120 people, the terrorist attack has proved the deadliest in Europe since 2004's Madrid train bombings, which claimed 191 lives. But, while the world continues to recover from the shock, it is worth raising the question of what roles consumer technology could play in preventing or countering terror or natural disasters.



#01 – QuakeFeed Earthquake Map, Alerts and News

By Artisan Global LLC
Category: Weather
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.



APPS TACKLING EARTHQUAKES, TORNADOES AND NATIONAL INSECURITY

Even just a few cursory searches through the iOS App Store or Google Play store reveal the ready availability of various smartphone and tablet apps that could be effectively used for reacting to threats and saving lives. Social media has long proved a particularly vital tool for tracking crises as they emerge, as was demonstrably the case from the earliest breaking news of the Paris attacks - and the Facebook and Twitter mobile apps have often attracted acclaim for their intuitive interfaces.

Many other apps, however, have more specialist purposes. Many are geared towards assisting people in preparing for or reacting to such natural disasters as earthquakes and tornadoes. Apps in this category include QuakeFeed, which provides maps indicating the locations of tectonic plates and **can alert users of earthquakes measuring over 6.0 on the Richter magnitude scale**.

Another app, developed by Nigeria-based company PISI Ltd two years ago in reaction to insecurity in the native country and other countries around the world, is E-Alert. Billed as providing **"Personal Security On The Go"**, it provides what the Nigerian news outlet the Lagos-based Daily Independent has dubbed **"a free emergency security service" to help prevent kidnappings, terror and other dangerous infractions**. The app's functions include an emergency panic button for freely notifying family in an emergency and GPS tracking of the user's location every 45 seconds after contacts have initially received alerts.

FROM OPTIONAL EXTRAS TO INTEGRATED SAFETY TOOLS

Some such apps now even come bundled with new devices or operating system updates. One good example is Find My Friends. You might have first noticed this app's icon, depicting two white silhouettes on an orange background, on your iOS device after updating to iOS 9 earlier in the fall - but it was actually first released by Apple, then as an optional app, **for the then new iOS 5 in October 2011.**

A user of this app can switch on Location Services on their iOS device in order to allow a select number of people, such as family and friends, to determine their location - or, at least, that of the device - using GPS technology. Someone using an iOS device or Mac to track a Find My Friends user can also receive alerts informing them when that individual has arrived at a particular place; after the Paris attacks, for example, an alert could have been sent to indicate that a loved one in the city has safely arrived home.

A similar app that has a long history but only became bundled with iOS from this fall is Find My iPhone - the name of which is accordingly changed for the same app on iPads, iPods and Macs. A rather self-explanatory app, it allows remote location-tracking of iOS devices and Macs - and so could prove utterly vital should you lose a device which includes urgent or sensitive information. In 2012, Find My iPhone was used by police in Atlanta, Georgia to **locate robbery suspects by tracing a stolen iPhone**.



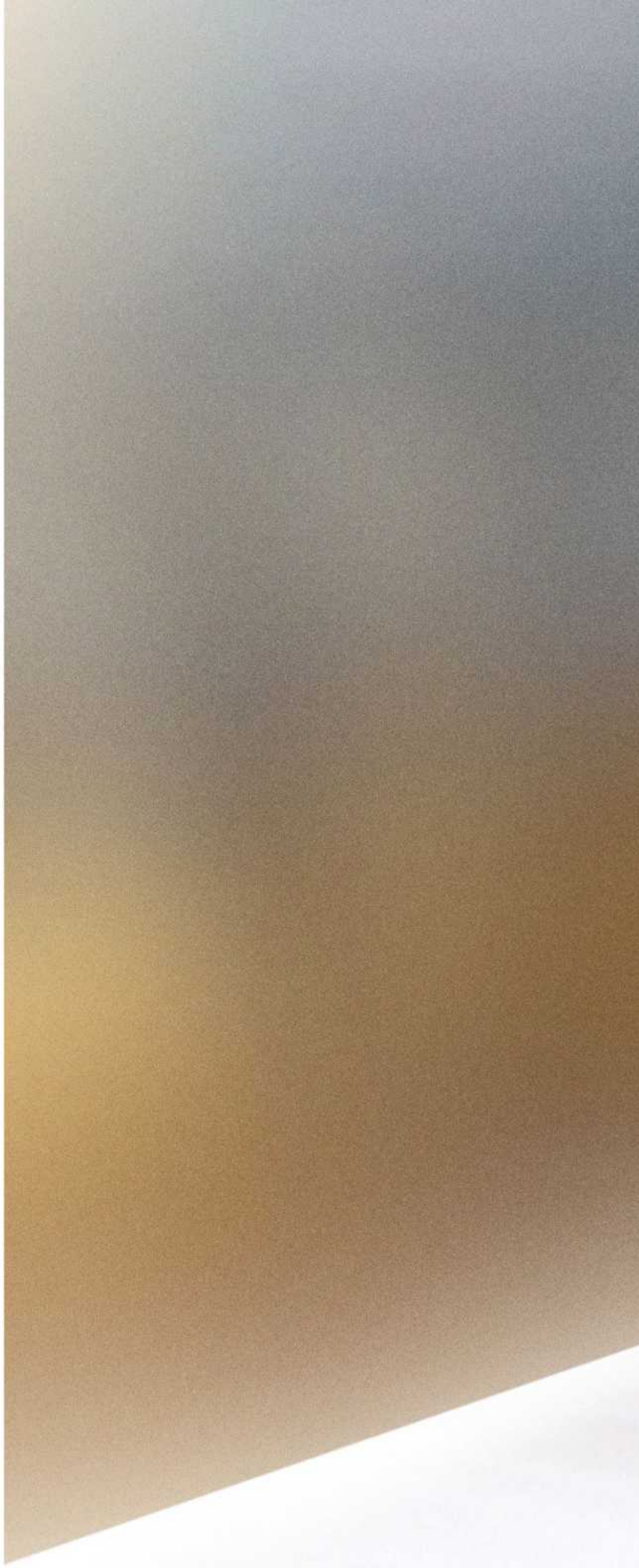

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Find My iPhone
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Password

CAUGHT ON CAMERA...
AND BROUGHT TO JUSTICE

What with cameras now coming as standard on even many rudimentary smartphones, it has become easier for many ordinary observers, or "citizen journalists", to visually capture crises - in both photo and video - as they unfold. The resulting photo and video can then be speedily posted to social media sites, where they can be readily seen and widely disseminated by others, including news outlets.

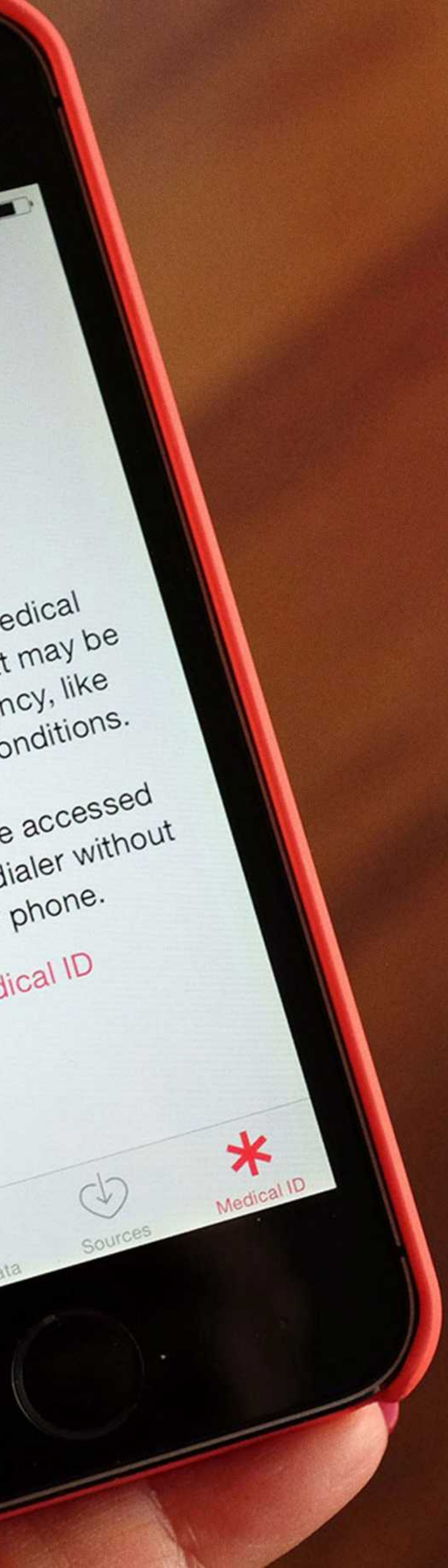
This situation can increase the hurdles that many suspect criminals need to overcome to avert detection, and this is before we consider apps that have been built more specially for crime-fighting purposes. One such app is Manything, which can **convert a spare iOS device into a home security webcam.** A second iOS device can be used for remotely controlling the camera device and receiving alerts should dubious motion be picked up in the area under surveillance.

It's also testament to the effectiveness of iOS cameras for such purposes that their use has extended beyond consumers. Redlands Police Department has reported adding iPhones to officers' duty belts; Jim Bueermann, Chief of Police for the City of Redlands, has observed how the **officers use iPhones to "take photos of victims or potential suspects"**, while mention has been made of how an iPad's large, clear display helps the department's command staff, officers and detectives to look at photos in more detail.





#02 – Manything
By Manything
Category: Lifestyle
Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.



HELPING OTHER PEOPLE TO HELP YOU

Though we have detailed many apps that you could personally use on your iPhone to help bring yourself out of danger, what happens if you become struck by an injury that prevents you from personally using your iPhone? In this situation, someone else could come to the rescue - and even help you to recover from your injury through using your iPhone. Yes, even without bypassing the Lock screen...

The Health app which debuted with the release of iOS 8 last year has many useful functions for looking after and boosting your health. However, one that you may have overlooked is the ability to create an emergency card, called Medical ID, that anyone with your iPhone can access without having to pass the Lock screen. Simply by swiping before pressing 'Emergency' on the screen, someone can bring up emergency contact details and vital health information, like your medical conditions and medications.

This feature has to be manually set up before it can be put to use, and AppleInsider **offers a comprehensive step-by-step guide for doing so**. There are also alternative strategies to setting up Medical ID, like adding your crucial medical information to the device's Lock screen wallpaper image.

THE iPHONE: A FORMIDABLE LAW ENFORCEMENT TOOL

We have seen many instances here of how smartphones and tablets can help to prevent deaths and other disasters. But, in the kind of situation that the people of Paris are now facing, where the broken pieces have to be picked up, how can this technology be used to suitably react to attacks and accidents that have already occurred?

Cult of Mac has provided an insight, pointing out that **the iPhone has become a popular tool in law enforcement for taking and identifying fingerprints of suspect criminals**. The handset has even been eyed by the FBI for spotting suspect terrorists. The iPhone-compatible fingerprint device known as the mobileOne and made by Fulcrum Technologies is affordable for even small police departments, largely because many police officers already have iPhones, and can capture fingerprints that meet the FBI's demanding standards.

Image: Dan Kitwood

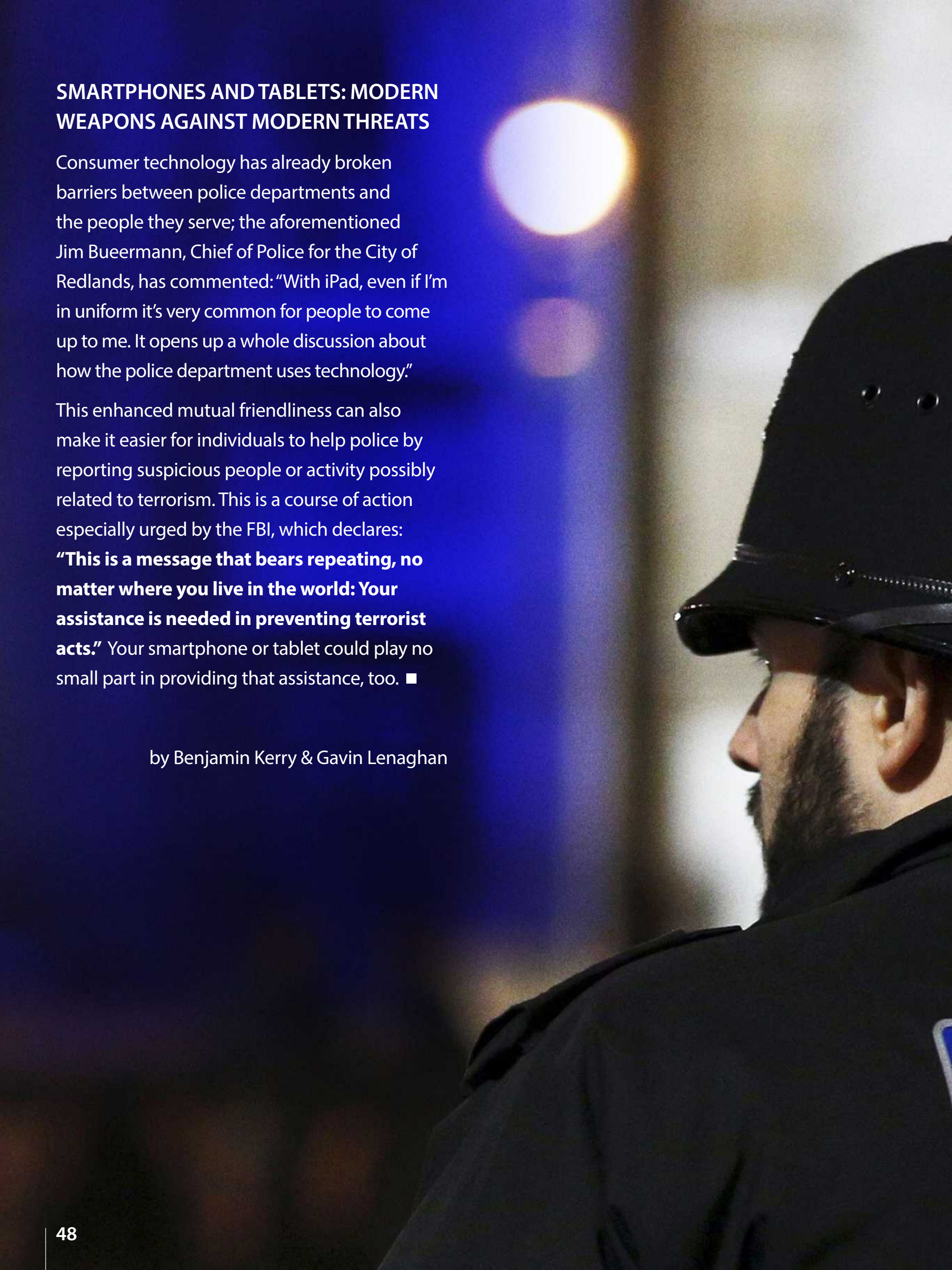

POLICE

SMARTPHONES AND TABLETS: MODERN WEAPONS AGAINST MODERN THREATS

Consumer technology has already broken barriers between police departments and the people they serve; the aforementioned Jim Bueermann, Chief of Police for the City of Redlands, has commented: "With iPad, even if I'm in uniform it's very common for people to come up to me. It opens up a whole discussion about how the police department uses technology."

This enhanced mutual friendliness can also make it easier for individuals to help police by reporting suspicious people or activity possibly related to terrorism. This is a course of action especially urged by the FBI, which declares: **"This is a message that bears repeating, no matter where you live in the world: Your assistance is needed in preventing terrorist acts."** Your smartphone or tablet could play no small part in providing that assistance, too. ■

by Benjamin Kerry & Gavin Lenaghan




BRITISH TRANSPORT
POLICE





“It’s a message of peace and solidarity. I didn’t do it to benefit from it in any way. It was my way of communicating with the people I know and showing that I was thinking about everyone affected in Paris. The fact that people shared it and used it, well, in a way that’s all for the better. It’s an image for everyone. It’s a communication tool for people to express solidarity and peace and that’s what it’s being used for, so I’m glad that it’s been useful.”

Jean Jullien

US STARTUP CHALLENGES JAPAN TO GIANT ROBOT BATTLE

They've been popularized in movies, television and video games, but giant fighting robots still haven't left the realm of science fiction. That will soon change.

Megabots Inc., an Oakland, California-based startup, has built a 15-foot mechanical gladiator called the Mark II and challenged a Japanese firm to an international battle for robot supremacy.

Tokyo-based Suidobashi Heavy Industries, maker of the 13-foot Kuratas, accepted the challenge, setting the stage for the first giant robot battle of its kind next year. The exact date and location are yet to be determined.

Win or lose, it's all part of Megabots' plan by to make gladiator-style robot combat into big-time entertainment - a mix between Ultimate Fighting Championship and Formula One auto racing - while developing new industrial technologies and inspiring a new generation of engineers.



Image: Eric Risberg



The Megabots founders envision a sports league where teams from around the world build huge humanoid robots that throw each other down in stadiums filled with screaming fans.

“Everyone wins as long as there is robot carnage,” said Megabots co-founder Matt Oehrlein, an electrical engineer. “People want to see these things fight. They want to see them punch each other, they want to see them ripped apart and they want to be entertained.”

Megabots was launched in 2014 by Oehrlein, Gui Cavalcanti and Brinkley Warren, who grew up playing video games like “MechWarrior” and “BattleTech,” and wanted to fulfill their dreams of watching massive machines fight.

“We want to bring the giant robots from science fiction and movies and video games to life because now we have the technology,” said Cavalcanti, a robotics engineer. “It’s really about: How do we put on the best show? How do we make the coolest fight?”

Inside a cavernous Oakland workshop, the Megabots founders built the Mark II - a 12,000-pound behemoth with tank treads, two-pilot cockpit and missile launcher that fires canon ball-sized paintballs.

Then Oehrlein called out Suidobashi in a YouTube video: “We have a giant robot. You have a giant robot. You know what needs to happen. We challenge you to a duel.”

Suidobashi’s founder Kogoro Kurata accepted in his own video: “We can’t let another country win this. Giant robots are Japanese culture. Yeah, I’ll fight. Absolutely.”





Kurata also taunted the Megabots team: "Come on guys, make it cooler. Just building something huge and sticking guns on it, it's super American."

The Megabots robot isn't quite ready to take on Kuratas, a more polished fighting machine with a big, agile hand that mimics the movements of the pilot's hand.

"Our current robot, the Mark II, looks pretty intimidating," Oehrlein said. "The truth is, it's pretty slow. It's top-heavy. It's rusty, and it needs a set of armor upgrades to be able to compete in hand-to-hand combat."

That's why Megabots launched an online Kickstarter campaign and raised more than $550,000 from robot fans to turn the Mark II into a real fighting machine - faster, tougher, more balanced and equipped with detachable weapons such as a giant chain saw or punching fist.

The startup has enlisted the help of engineers from NASA, software maker Autodesk, the TV shows "Mythbusters" and "BattleBots."

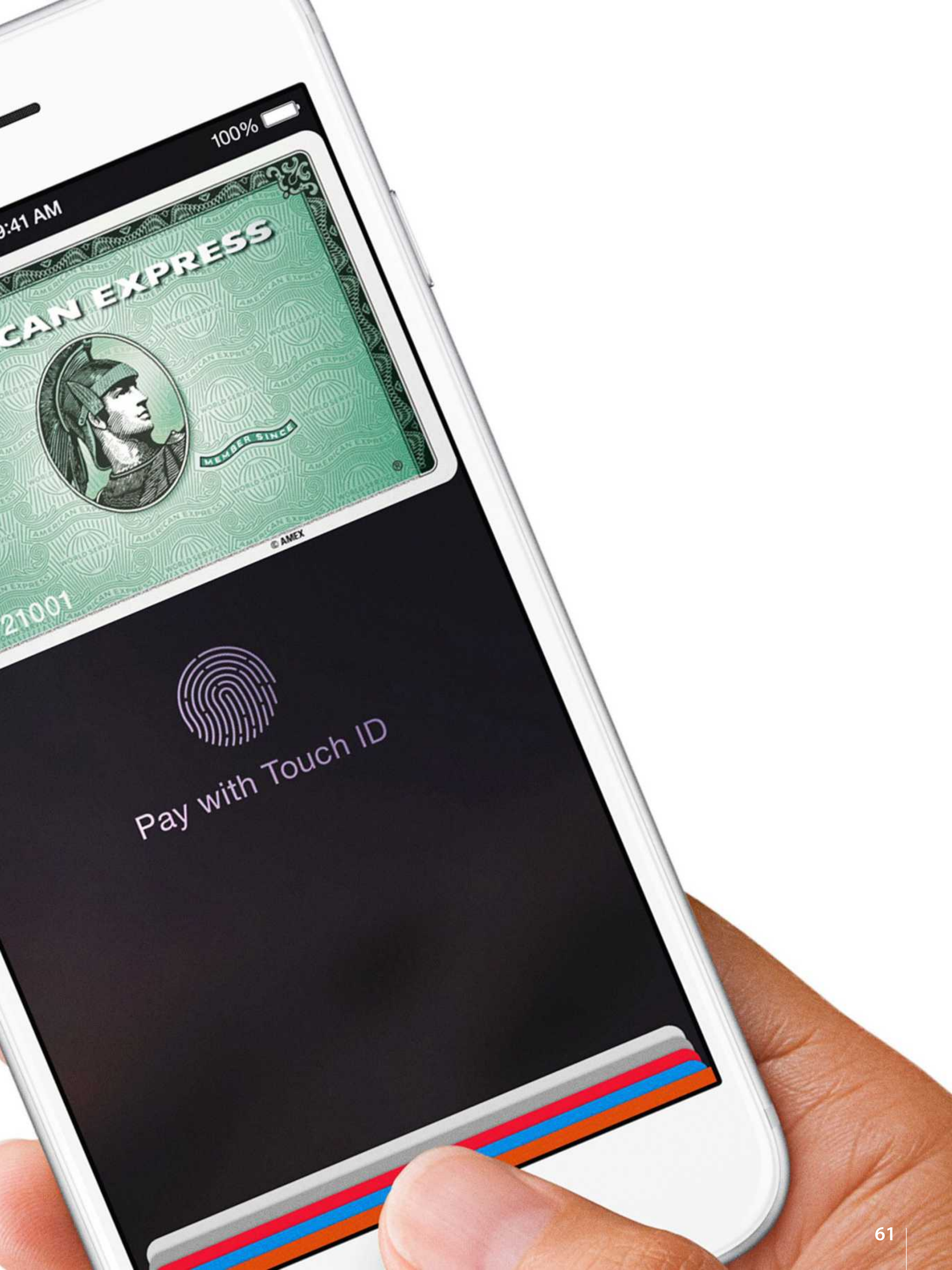
"We're absolutely confident that Team USA can beat Japan. We've assembled the best of the best of this country. We're not going to let our country down," Calvalcanti said.

Robot enthusiasts like Gordon Kirkwood are eagerly anticipating the fight.

"I think it's going to be a smash hit," said Kirkwood, a robotics engineer in San Francisco. "This has the potential to be a fantastic spectator sport that people would really pay good money to see."

APPLE PAY EXPANDS AS IT VIES FOR BROADER ACCEPTANCE




100%
9:41 AM
CAN EXPRESS
MEMBER SINCE
© AMEX
21001
Pay with Touch ID

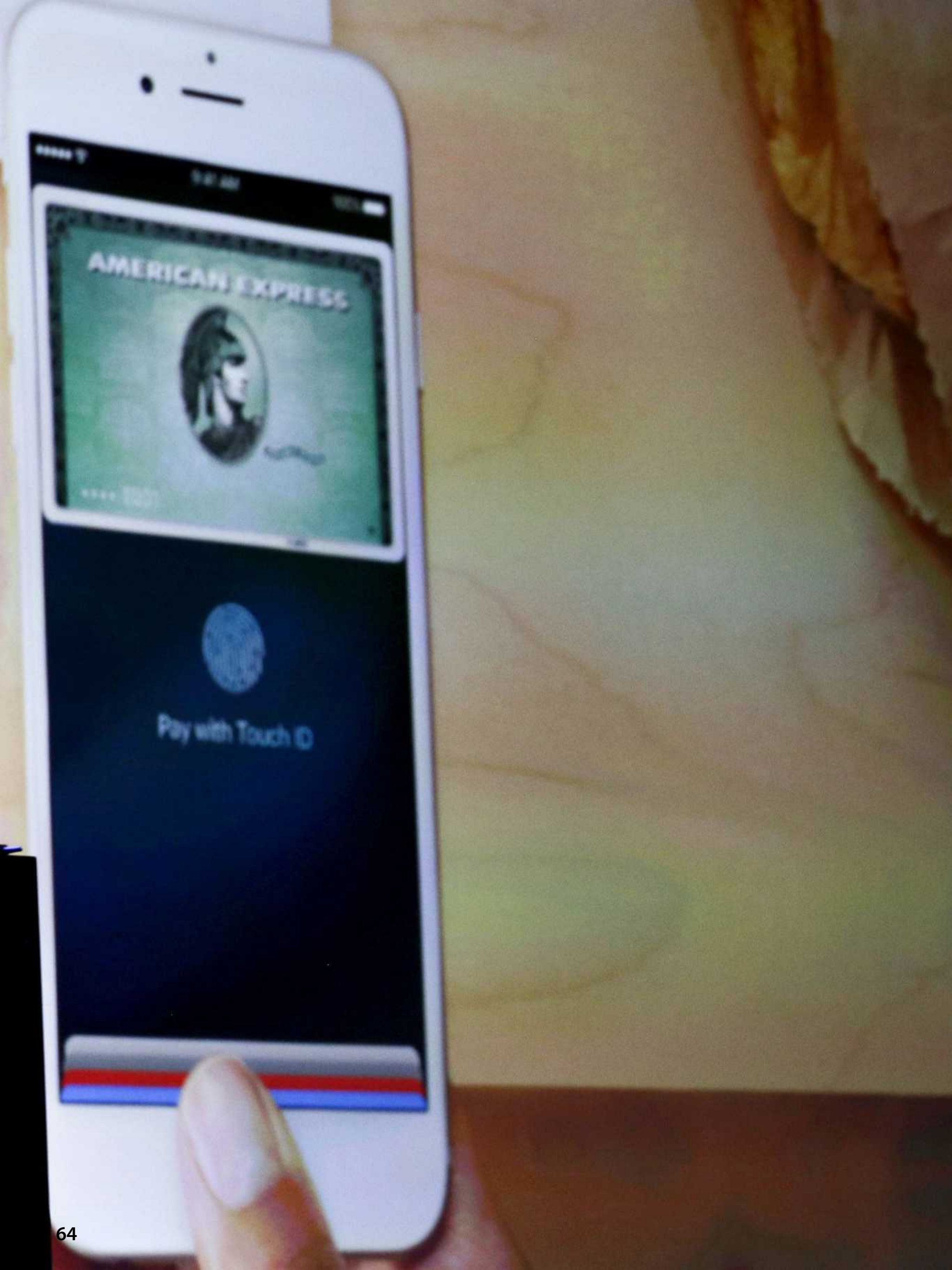
Apple's year-old mobile-payments service is expanding to more countries, banks and merchants, as it faces growing competition and some challenges before it becomes as commonplace as plastic cards.

Apple Pay is available in Canada starting Tuesday and in Australia on Thursday. Those are two countries where "tap" payments - tapping a phone or chip-embedded card to the store's payment machine - are already more common than in the U.S. In those countries, however, Apple Pay is limited initially to American Express cards.

In the U.S., where Apple Pay started in October 2014, the service will expand Tuesday to more than 100 additional card issuers - mostly smaller banks and credit unions. Apple Pay already accepts Visa, MasterCard, American Express and Discover cards from most major banks. In the U.K., Tesco and TSB banks will join Apple Pay on Tuesday.

The developments come a few months after Google launched its own tap-and-pay service, Android Pay, while Samsung started Samsung Pay. Both are for Android phones, while Apple Pay requires iPhones.




AMERICAN EXPRESS
Pay with Touch ID



GRADUAL EXPANSION

Jennifer Bailey, Apple's vice president for Apple Pay, said the company is starting with American Express in Canada and Australia because it's both the card issuer and the payment-network operator, so coordination is easier. With Visa and MasterCard, individual banks issue the cards, and each bank has its own way of verifying a customer's identity when setting up Apple Pay, for instance.

Meanwhile, Apple is working with makers of various payment machines to bring tapping capabilities to additional merchants, small and large. When Apple Pay launched, the U.S. had 200,000 tap-capable machines. That's expected to surpass 1.5 million this year. The growth includes about 100,000 small to medium-sized merchants each month, Apple said.

Apple said Tuesday that Cinnabon will add Apple Pay to all its U.S. locations next year, while Domino's company-owned pizza stores will get it by year's end. Earlier, Apple said Starbucks will conduct a pilot this year, with a broader rollout next year, while KFC will launch next spring.

Despite the momentum, several million more U.S. retailers still have older machines that lack the right technology.

PAYING AT RESTAURANTS

Even if a merchant has the equipment, it's often located behind a counter, out of arm's reach. At sit-down restaurants, it's not practical for people to have to get up to make a tap at a counter. Most people prefer leaving a card with a waiter, at least in the U.S. (In Canada and many European countries, it's common for staff to bring a portable card machine to your table.)

Addressing that will require a combination of approaches, Bailey said. She said Chili's is installing tablets at tables so people can order and pay right there, starting in the spring. The restaurant-reservation service OpenTable already lets diners use its app to pay at some restaurants. Other U.S. restaurants, she said, will embrace portable card machines.

"You'll see restaurants really look to innovate," Bailey said, adding that restaurants can squeeze in more customers with faster payments, and customers are happier if they don't have to wait for the check.



THE U.S. IS BEHIND

Americans are used to plastic cards, and many people aren't drawn to the increased security that these services provide because banks typically waive liability for fraud.

But the dynamics could change with the growing use of plastic cards embedded with security chips. Chip transactions take longer than a traditional magnetic swipe, making the convenience of tapping seem more attractive.

Because other countries have had chip transactions longer, they are further along in accepting tap payments, Bailey said. She expects U.S. shoppers will come to accept tap payments, too, now that chip cards are becoming standard.



GOOGLE ANTSY AS CALIFORNIA SLOW ON SELF-DRIVING CAR RULES





Hustling to bring cars that drive themselves to a road near you, Google finds itself somewhere that has frustrated many before: Waiting on the Department of Motor Vehicles.

The tech titan wants the freedom to give the public access to self-driving prototypes it has been testing on public roads since the summer. Before granting that permission, California regulators want Google to prove these cars of the future already drive as safely as people.

The Department of Motor Vehicles was supposed to write precedent-setting rules of the road by last Jan. 1. Nearly a year later, it is still struggling. After all, the agency is geared to administering driving tests and registering cars, not settling complicated questions the technology raises.

If the cars' advanced sensors and computing power can drive better than humans, do they need a steering wheel and pedals? Would a person even need to be inside? Google says no on both.

Regulators don't want to be blamed for unnecessarily stalling the arrival of robo-chauffeurs that can see farther, react faster and don't text, speed or fall asleep. They've implored Google and traditional automakers also developing the technology to share safety data, but companies in competition don't willingly reveal trade secrets.

Delay is not what Google had in mind when it pushed the 2012 legislation that made California one of the few states officially to authorize self-driving cars. Google's hope was to trade the independence to innovate without government oversight for regulatory certainty.

Three years later, both a company that abhors bureaucracy and a DMV struggling to write rules beyond its expertise are exasperated.

While self-driving cars are not close to being widely available, Google hinted in 2014 it wanted to get self-driving cars into public hands as early as 2016, probably starting with employees outside its small corps of self-driving car experts.

More recently, the project's leader, Chris Urmson, has said he doesn't want his eldest son to need a driver's license when he turns 16 in 3-1/2 years.

The bubble-shaped, two-seater prototype can't go anywhere, any time. It is limited to places Google has surveyed in far greater detail than its online maps. It can't handle fog or snow. Top speed: 25 mph.

Google's 73 cars are among the 98 test vehicles that California's DMV has given 10 companies permission to test publicly.

Though trained test drivers must sit behind the wheel, Google wants to remove the wheel and pedals for the general public. Its argument: It would be safer to take all control away than expect a person to snap safely to attention in an emergency.

As a famously data-driven company, Google proposes a composite sketch of evidence would show its cars are safe.

Each day, Google runs more than 3 million miles of computerized driving simulations. Engineers devise challenging real-world situations, then see how the cars respond. A "functional safety analysis" assesses what hardware or software might fail and how to minimize those risks.




513



Public road testing is the last piece. Google reports its cars have been involved in 17 collisions over 2.2 million miles of testing, nearly 1.3 million miles in self-driving mode. While that accident rate appears to be higher than for human drivers (though Google disputes that), accident summaries Google has published say its cars did not cause any accident.

Google has pressed California's DMV to publish regulations far harder than any other company.

"Our team is concerned about the delay," according to an invitation for a conference call last December that Google sent California officials, who released it under a public records act request.

Both before and after, Google representatives consistently checked with officials at the DMV and California State Transportation Agency about the status of rules. State officials have trooped from Sacramento to Silicon Valley for test rides, while Google's technical experts and lobbyists have headed to the capital for briefings or talks about regulation writing.

"The worst thing would be for California, sort of the birth state of this technology, to accidentally sort of shut things down," Sarah Hunter, public policy director at the experimental lab Google spun off to focus on ambitious projects such as self-driving cars and Internet-beaming balloons, said at a public presentation in September.

Shortly before, she jokingly jabbed a co-panelist who is the top DMV self-driving car official. Asked when self-driving technology would be "mainstream," Hunter responded: "Whenever the DMV pass their operational regulations."




Self-Driving Car



There's frustration to go around.

At the DMV, officials have pleaded for input from Google and traditional automakers to help set a clear, objective safety standard. At a meeting in May in Washington, traditional automakers joined Google in voicing concern that regulation - particularly in California - could stifle innovation.

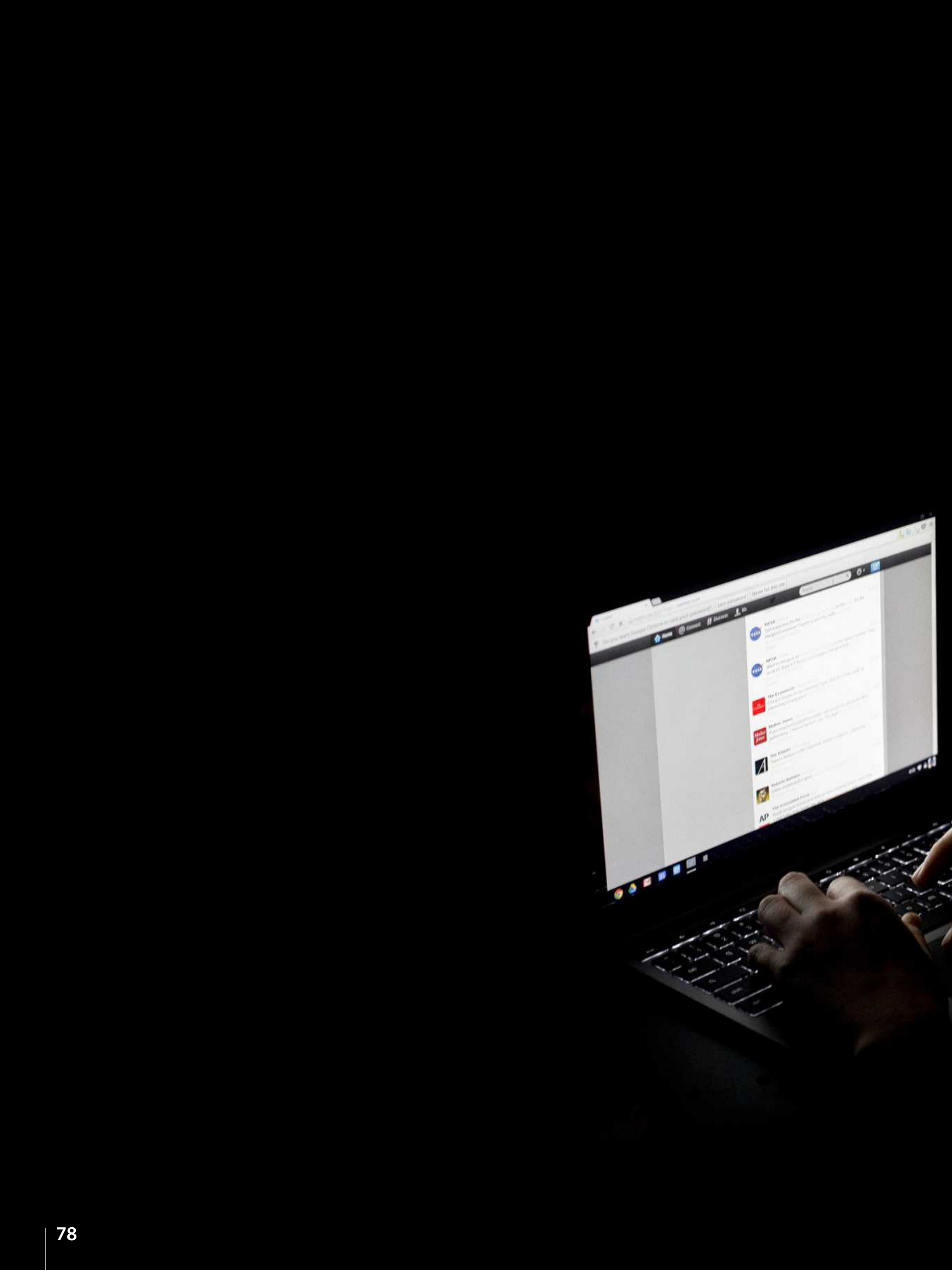
There are no federal regulations on self-driving cars.

Still, California officials are "taking cues" from the National Highway Traffic Safety Administration, said the state's secretary of transportation, Brian Kelly. NHTSA's official position holds that any state which authorizes self-driving cars should require a licensed driver who can take control.

"My sense of it is we're getting a go-slow message from the federal government," Kelly said. He said that made sense for safety, but as a state famous for innovation, "we want to work through some of those sticky issues." He hopes the DMV will publish draft rules for public input by year's end.

In interviews, NHTSA Administrator Mark Rosekind and his boss, U.S. Transportation Secretary Anthony Foxx, said they support the technology for its life-saving potential but that the federal government's message to California was "go safe" in its regulation writing. Intriguing as that potential may be, California should not hastily write new regulations, despite "pressure" to do so, Rosekind wrote DMV Director Jean Shiomoto in April.

Over the summer, Google expanded its road testing from Silicon Valley to Texas, where state law would not obviously prohibit cars without pedals and a wheel. Some within California's DMV wondered whether Google's move was motivated by frustration with its home state.



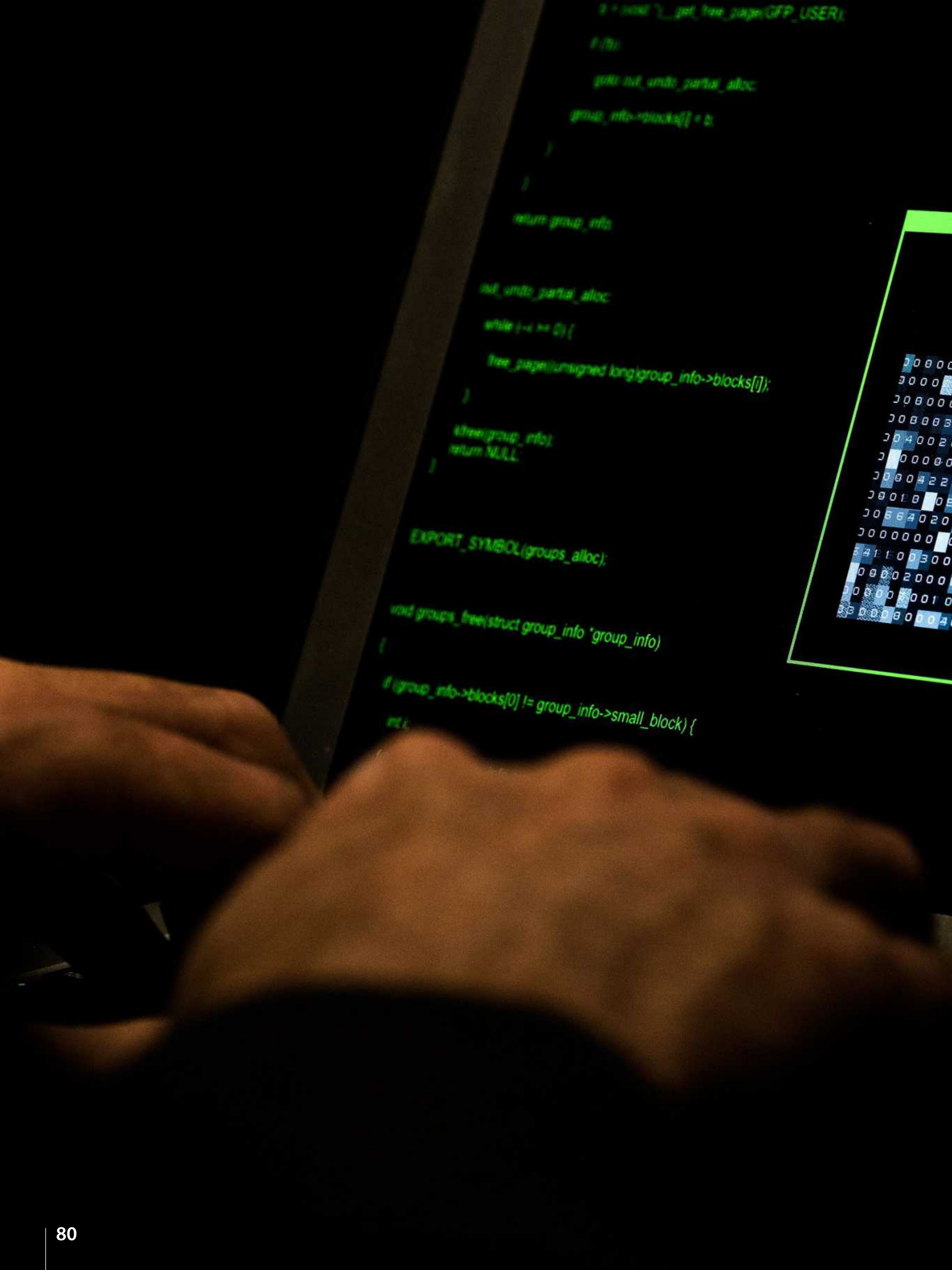
HERE WE GO AGAIN: PARIS ATTACKS MAY RENEW ENCRYPTION DEBATE



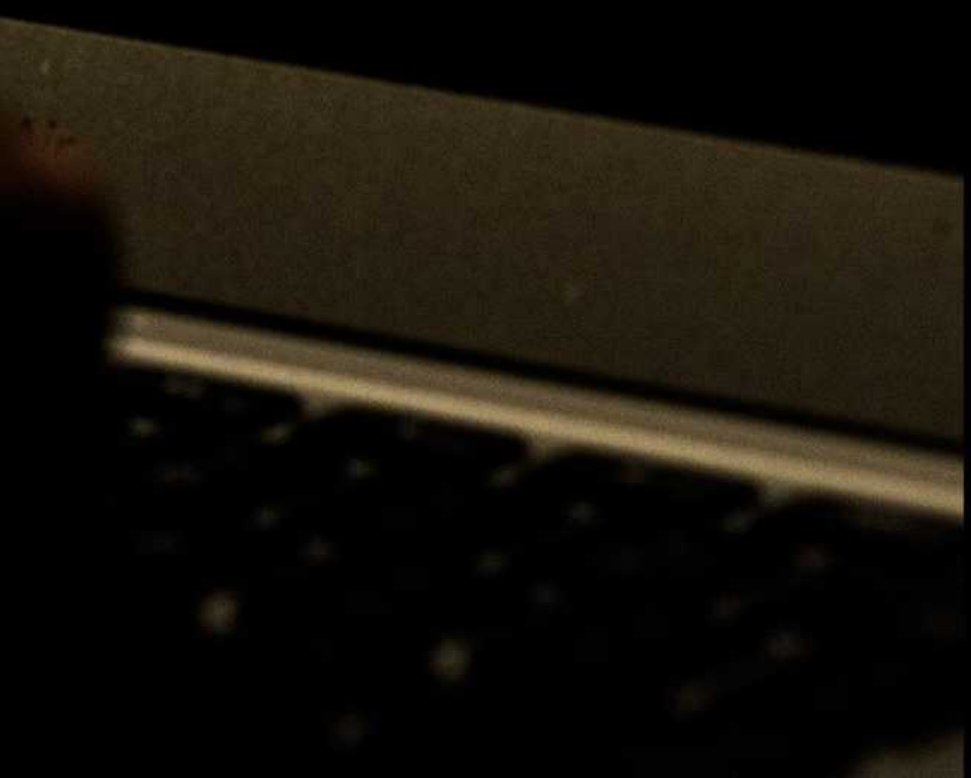
The deadly attacks in Paris may soon reopen the debate over whether - and how - tech companies should let the government sidestep the data scrambling that shields everyday commerce and daily digital life alike.

So far, there's no hard evidence that the Paris extremists relied on encrypted communications - essentially, encoded digital messages that can't be read without the proper digital "keys" - to plan the shooting and bombing attacks that left 129 dead on Friday. But it wouldn't be much of a surprise if they did.

So-called end-to-end encryption technology is now widely used in many standard message systems, including Apple's iMessage and Facebook's WhatsApp. Similar technology also shields the contents of smartphones running the latest versions of Apple and Google operating software. Strong encryption is used to protect everything from corporate secrets to the credit-card numbers of online shoppers to intimate photos and secrets shared by lovers.


return group_info;
out_undo_partial_alloc:
while (--i >= 0) {
free_page((unsigned long)group_info->blocks[i]);
}
kfree(group_info);
return NULL;
}
EXPORT_SYMBOL(groups_alloc);
void groups_free(struct group_info *group_info)
{
if (group_info->blocks[0] != group_info->small_block) {





That widespread use of encryption, which was previously restricted to more powerful desktop or server computers, is exactly what worries members of the intelligence and law enforcement communities. Some are now using the occasion of the Paris attacks to once again argue for restrictions on encryption, saying it hampers their ability to track and disrupt plots like this one.

"I now think we're going to have another public debate about encryption, and whether government should have the keys, and I think the result may be different this time as a result of what's happened in Paris," former CIA deputy director Michael Morell said Monday on CBS This Morning.

The last such debate followed the 2013 disclosures of government surveillance by former National Security Agency contractor Edward Snowden. Since then, tech companies seeking to reassure their users and protect their profits have adopted more sophisticated encryption techniques despite government opposition. Documents leaked by Snowden also revealed NSA efforts to break encryption technologies.

In response, law-enforcement and intelligence officials have argued that companies like Apple and Google should build "backdoors" into their encryption systems that would allow investigators into otherwise locked-up devices during investigations. The Obama administration continues to encourage tech companies to include such backdoors, although it says it won't ask Congress for new law that requires them.

The trouble with that approach, as Apple CEO Tim Cook said in an interview last week with The Daily Telegraph, is that "any backdoor is a backdoor for everyone." In short, any shortcut for investigators could also be targeted by cybercriminals eager to hack major corporations - a la the devastating cyberattack on Sony late last year - or to target individuals for identity theft or extortion, as reportedly occurred following the disclosure of records from the infidelity dating site Ashley Madison.

A report on the state of digital security released this summer by MIT's Computer Science and Artificial Intelligence lab argued against opening a peephole for government agencies. The analysis by 15 professors, security experts and researchers likened the idea of giving the government a digital key to encrypted communications to leaving a house key under the front doormat.





"The Snowden revelation showed that backdoors can be destructive, particularly when they're done in secrecy without transparency," says Will Ackerly, a former NSA security researcher and the co-founder of Virtru, which provides encryption technology for both companies and individual people.

Steven Bellovin, a Columbia University professor and computer security researcher, said he wasn't surprised by the effort to bring back discussion on encryption backdoors. But he said it's way too early to tie it to the Paris attacks.

"We don't know how these people were communicating and with whom," he said. "If they were communicating with homegrown software and there's some indications of that, then a mandatory back door is not going to do any good."

TOP Free Apps



#01 – Acapella from PicPlayPost
By Mixcord Inc.
Category: Music
Requires iOS 8.0 or later. Compatible with iPhone, iPad, and iPod touch.
This app is optimized for iPad Pro.

#02 – Facebook Messenger
By Facebook, Inc.
Category: Social Networking
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

#03 – Instagram
By Instagram, Inc.
Category: Photo & Video
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

#04 – Facebook
By Facebook, Inc.
Category: Social Networking
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

#05 – iTunes U
By Apple
Category: Education
Requires iOS 8.3 or later. Compatible with iPhone, iPad, and iPod touch.

#06 – Snapchat
By Snapchat, Inc.
Category: Photo & Video
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

#07 – YouTube
By Google, Inc.
Category: Photo & Video
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

#08 – Pandora - Free Music & Radio
By Pandora Media, Inc.
Category: Music
Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.
This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.

#09 – Pixduel™
By FEO Media
Category: Games
Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

#10 – McDonald's
By McDonald's USA
Category: Food & Drink
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

iOS

TOP Free Apps



#01 – OS X El Capitan
By Apple
Category: Utilities
Compatibility: OS X 10.6.8 or later

#02 – App for Instagram
By Joacim Ståhl
Category: Social Networking
Compatibility: OS X 10.7 or later, 64-bit processor

#03 – Xcode
By Apple
Category: Developer Tools
Compatibility: OS X 10.8.4 or later

#04 – Microsoft Remote Desktop
By Microsoft Corporation
Category: Business
Compatibility: OS X 10.7 or later, 64-bit processor

#05 – Kindle
By AMZN Mobile LLC
Category: Reference
Compatibility: OS X 10.8 or later

#06 – GIF Keyboard
By Riffsy, Inc
Category: Utilities
Compatibility: OS X 10.8 or later, 64-bit processor

#07 – ooVoo Video Call, Text and Voice
By ooVoo LLC
Category: Social Networking
Compatibility: OS X 10.7 or later, 64-bit processor

#08 – Microsoft OneNote
By Microsoft Corporation
Category: Productivity
Compatibility: OS X 10.10 or later

#09 – Full Deck Solitaire
By GRL Games
Category: Games
Compatibility: OS X 10.6.6 or later

#10 – Fotor Photo Editor
By Chengdu Everimaging Science and Technology Co., Ltd
Category: Photography
Compatibility: OS X 10.6 or later, 64-bit processor

Mac OS X

TOP Paid Apps



#01 – Minecraft: Story Mode

By Telltale Inc
Category: Games / Price: $4.99
Requires iOS 7.1 or later. Compatible with iPhone, iPad, and iPod touch.



#02 – Minecraft – Pocket Edition

By Mojang
Category: Games / Price: $6.99
Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch.



#03 – Geometry Dash

By RobTop Games AB
Category: Games / Price: $1.99
Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch.



#04 – Plague Inc.

By Ndemic Creations
Category: Games / Price: $0.99
Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.



#05 – Call of Duty: Black Ops Zombies

By Activision Publishing, Inc.
Category: Games / Price: $6.99
Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch.



#06 – Facetune

By Lightricks Ltd.
Category: Photo & Video / Price: $3.99
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.



#07 – Octodad: Dadliest Catch

By Young Horses, Inc.
Category: Games / Price: $4.99
Requires iOS 8.0 or later. Compatible with iPhone, iPad, and iPod touch.



#08 – Akinator the Genie

By Elokence
Category: Entertainment / Price: $1.99
Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.



#09 – Bloons TD 5

By Ninja Kiwi
Category: Games / Price: $2.99
Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.



#10 – Lumino City

By State of Play Games
Category: Games / Price: $4.99
Requires iOS 9.0 or later. Compatible with iPhone, iPad, and iPod touch.

iOS



#01 – GarageBand
By Apple
Category: Music / Price: $4.99
Compatibility: OS X 10.9 or later



#02 – AntiVirus Sentinel Pro
By Calin Popescu
Category: Utilities / Price: $9.99
ompatibility: OS X 10.7 or later, 64-bit processor



#03 – Logic Pro X
By Apple
Category: Music / Price: $199.99
Compatibility: OS X 10.8.4 or later, 64-bit processor



#04 – Duplicate Photos Fixer Pro
By Systweak Software
Category: Photography / Price: $0.99
Compatibility: OS X 10.7 or later



#05 – Disk Aid
By FIPLAB Ltd
Category: Utilities / Price: $14.99
Compatibility: OS X 10.7.5 or later, 64-bit processor



#06 – RollerCoaster Tycoon 3 Platinum
By Aspyr Media, Inc.
Category: Games / Price: $9.99
Compatibility: OS X 10.8.5 or later



#07 – Document Writer
By xiong feng
Category: Business / Price: $9.99
Compatibility: OS X 10.7 or later



#08 – Disk Doctor
By FIPLAB Ltd
Category: Utilities / Price: $2.99
Compatibility: OS X 10.7.3 or later, 64-bit processor



#09 – FaceTime
By Apple
Category: Social Networking / Price: $0.99
Compatibility: OS X 10.6.6 or later



#10 – OS X Server
By Apple
Category: Utilities / Price: $19.99
Compatibility: OS X 10.10.5 or later

TOP Paid Apps

Mac OS X

iTunes

Review



Movies & TV Shows

Mission: Impossible - Rogue Nation



iTunes **Preview**

by Christopher McQuarrie
Genre: Action & Adventure
Released: 2015
Price: $19.99

★★★★★
176 Ratings

Trailer

Rotten **Tomatoes**
CERTIFIED FRESH 92%

The fifth film in the Mission: Impossible series may be the most tense and action-packed yet, as Ethan and the team take on their most impossible mission yet: destroying a near-mythical team of assassins who threaten to eradicate the IMF.

FIVE FACTS:

1. Mission: Impossible is the 17th highest-grossing movie series of all time.

2. The sixth movie of the series is already in development as of May 2015.

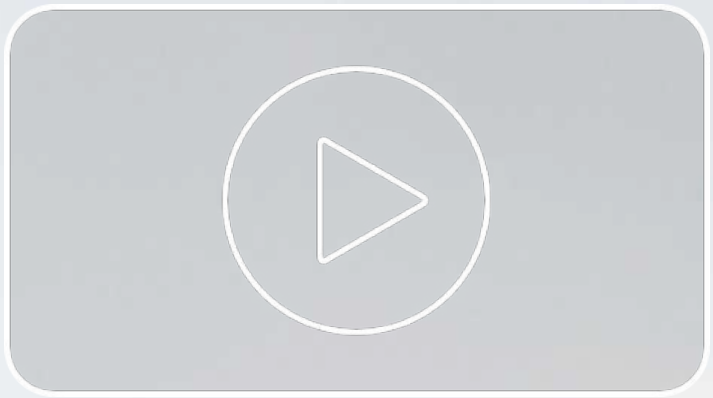
3. Tom Cruise and Simon Pegg performed all their own driving stunts in this movie.

4. Tom Cruise was injured six times during the making of the movie.

5. Simon Pegg has also starred in range of popular comedy movies including Shaun of the Dead (2004), Paul (2011), and Hot Fuzz (2007), as well as starring in previous Mission: Impossible movies.

See more in iTunes





Other video: interview with main actor Tom Cruise

Roger Waters the Wall

As one of the co-founders of Pink Floyd, it's no doubt that this movie will be as out-of-this-world as Roger Water's contributions to the music world. Originally a stage show that breaks the boundaries of live music, the show is now available on feature film for the first time.

FIVE FACTS:

1. The tour was the first time the Pink Floyd album The Wall has been performed in its entirety by the band or any of its former members since 1990.

2. After several years of touring worldwide, it was suggested that a show in Paris in 2013 was the final ever show.

3. The tour once overtook Madonna as being the highest-grossing tour for a solo musician.

4. Often considered to be one of the most ambitious and complex rock shows ever staged.

5. The show is a reimagining of Pink Floyd's 1980-1981 tour.



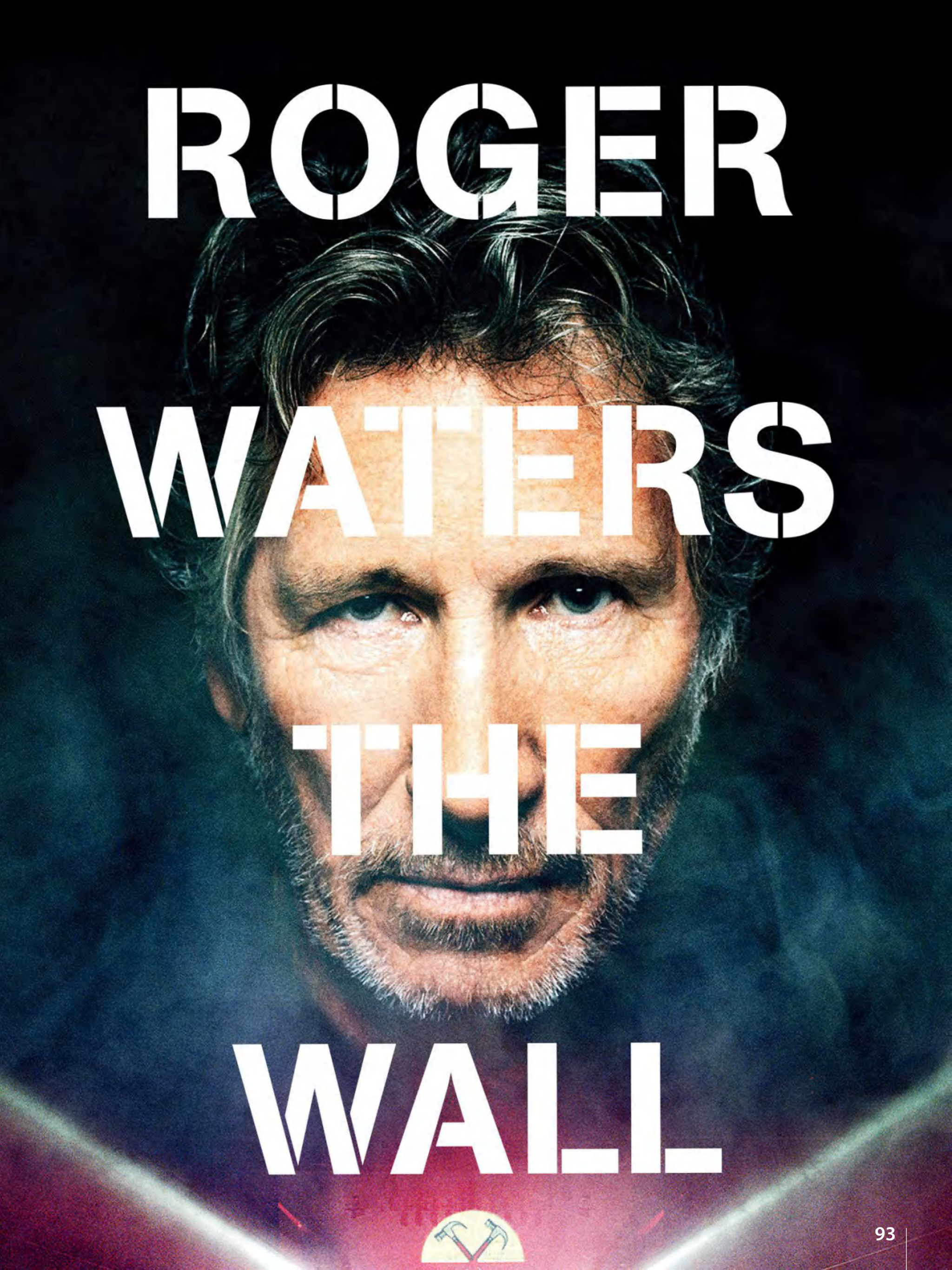
iTunes **Preview**

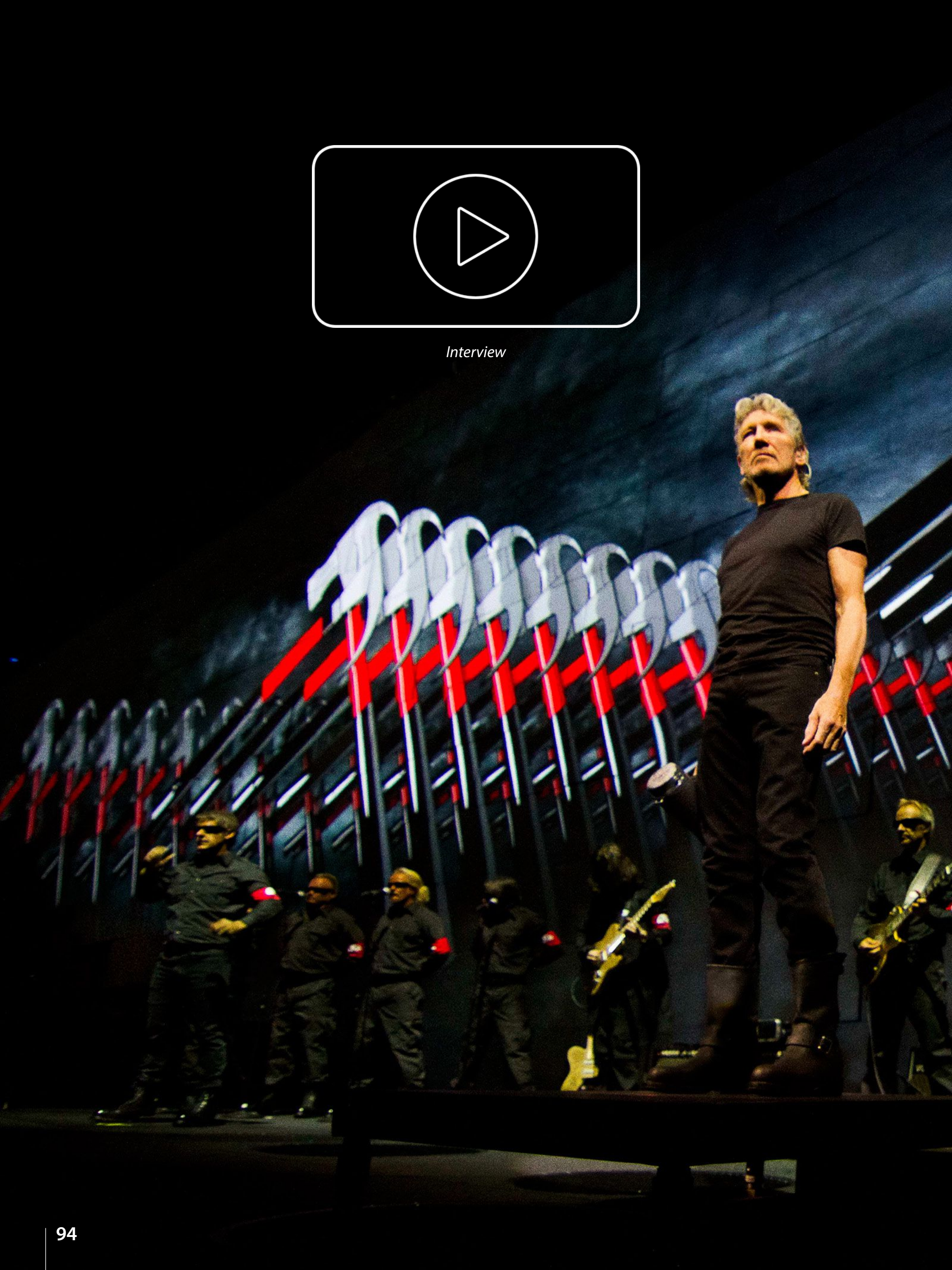
by Sean Evans & Roger Waters
Genre: Documentary
Released: 2015
Price: $19.99

★★★★★
15 Ratings

Trailer

Rotten **Tomatoes**
CERTIFIED FRESH 95%


ROGER
WATERS
THE
WALL



Interview

iTunes

Review



Music



iTunes **Preview**

Genre: Pop
Released: Nov 13, 2015
17 Songs
Price: $14.99

★★★★★
14224 Ratings

Perfect

Made In The A.M. (Deluxe Edition)

One Direction

Their final album before an assumed hiatus; "Made In The A.M." is one of the world's biggest boyband's most-loved albums yet. With 4 extra bonus tracks, this is a must-have for any Directioners out there.

FIVE FACTS:

1. The band are set to go on hiatus in March of 2016 to pursue solo careers.

2. They became the first band in the U.S. Billboard 200 history to have their first four albums debut at number 1.

3. Originally, the 5 members auditioned as solo acts on the 2010 edition of The X Factor. They were then merged into a group. Despite gaining popularity in the UK throughout the series, they didn't win the show.

4. Harry Styles won the "Villain of the Year" award at the 2014 NME awards, which prompted an outrage from fans of the band.

5. Their "Where We Are" tour was the highest grossing concert tour of 2014, and the highest-grossing tour ever by a vocal group.

See more in iTunes





Interview with the band

Paper Mâché Dream Balloon

King Gizzard and the Lizard Wizard

Paper Mâché Dream Balloon is the seventh album in three years from the quirky Australian seven-piece. Although they're primarily a psych band; hints of jazz and folk can be found in this album. An unusual and dreamlike album with some rather bizarre lyrics; don't knock it before you try it.

FIVE FACTS:

1. The band are signed to Heavenly Recordings in the UK. This label currently plays home to popular alternative acts such as The Wytches and Temples, but has took well-known acts such as Manic Street Preachers and Doves under its wing in the past.

2. King Gizzard are known for their unpredictable live performances, which often stretch out or seem to blend into an hour-long jamming session.

3. The band have released 7 albums in the last three years, with two each year from 2013.

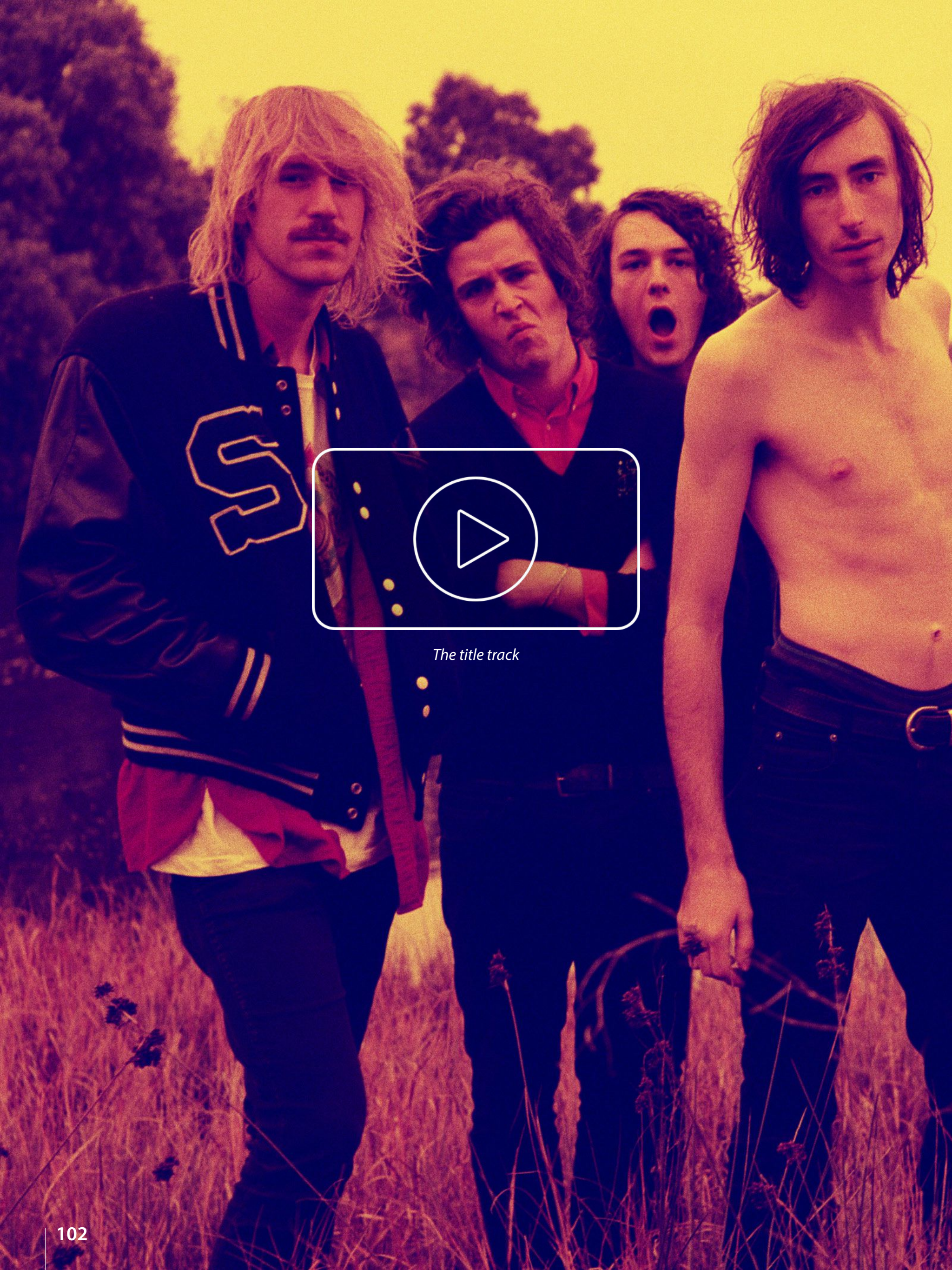
4. All of their albums are also released with the band's own label, Flightless. It is unknown if anybody else is signed to this label.

5. The band have also worked with Shock Records, which has also signed legendary alternative artists such as Marilyn Manson, Interpol, and The Prodigy.





A performance from the band on KEXP



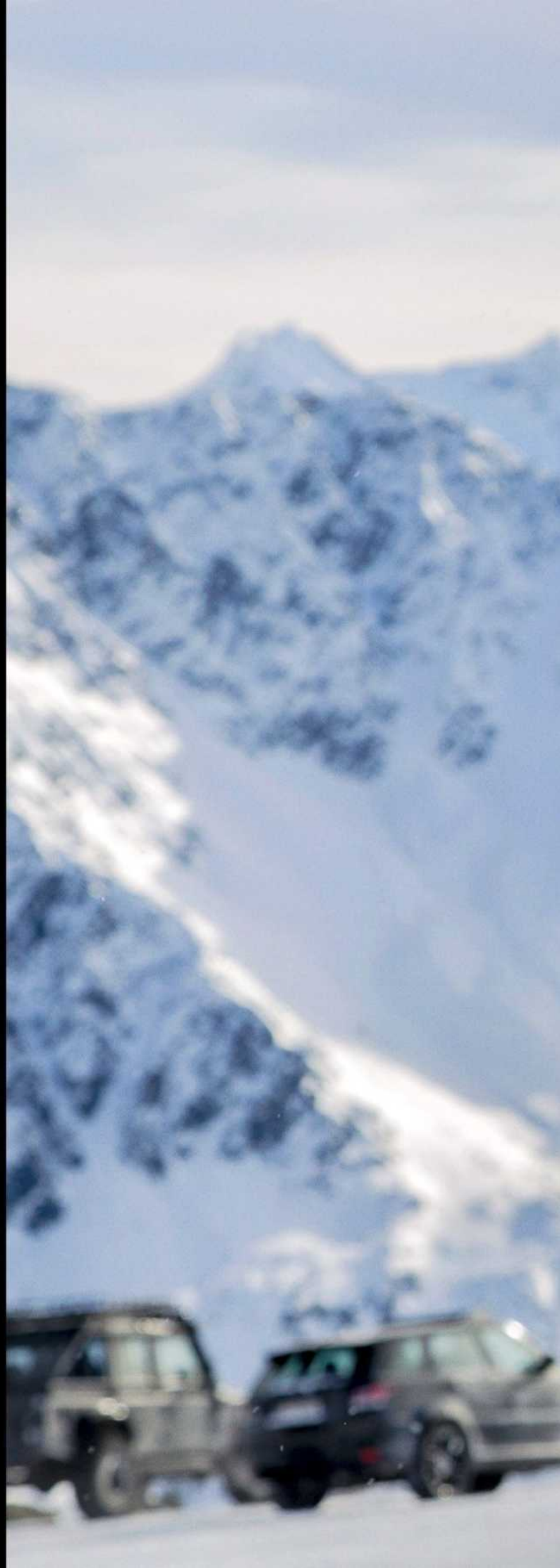
The title track



‘SPECTRE’ STAYS ON TOP WITH $35.4M, ‘PEANUTS’ WITH $24.2M

The box-office duo of James Bond and Charlie Brown again dominated North American movie theaters over the weekend, while Angelina Jolie Pitt’s “By the Sea” made barely a ripple.

Sony’s “Spectre,” the 24th Bond installment and last week’s top film, took in $35.4 million in its second weekend, according to studio estimates Sunday. Daniel Craig’s fourth Bond film has most flexed its muscles abroad, where the majority of its $500 million-plus two-week global haul has come from. It got a boost, too, over the weekend in China, where it debuted with $48 million - the best opening for a 2-D, U.S. release in China, Sony said.



"The Peanuts Movie," from 20th Century Fox, remained in second place with $24.2 million. Both it and "Spectre" held strongly in their second weeks. "The Peanuts Movie" has grossed $82.5 million thus far.

Of the new releases, the Christmas comedy "Love the Coopers" - a family holiday gathering directed by Jessie Nelson and starring an ensemble including Diane Keaton and Alan Arkin - fared the best. It took in $8.4 million for CBS Films.

Warner Bros.' Chilean miner drama, "The 33," earned a middling $5.8 million. Though the 2010 disaster, which trapped 33 miners underground, riveted the world for 69 days, moviegoers showed little interest in a dramatized version of the event starring Antonio Banderas and Lou Diamond Phillips.

Universal Pictures considerably scaled back the release of the poorly reviewed "By the Sea," a marital drama starring Jolie Pitt and Brad Pitt. Playing in just 10 theaters, it made only $95,440. The third film directed by Jolie Pitt, who also wrote the script, "By the Sea" was made for a modest $10 million, so it won't hurt Universal much, but proved surprisingly unappealing to moviegoers despite starring two of Hollywood's biggest stars.

Expanding to 60 theaters, Tom McCarthy's acclaimed "Spotlight," about the Boston Globe investigation into Catholic priest sex abuse, pulled in $1.4 million with a per-screen average of $23,307 for Open Road Films. Tabbed as an Oscar favorite, the film, featuring an ensemble including Mark Ruffalo and Michael Keaton, is stoking interest with a gradual expansion.



Next weekend, Lionsgate's "The Hunger Games: Mockingjay Part 2," the final chapter in the young-adult saga, is sure to supplant Bond at the top of the box office.

Estimated ticket sales for Friday through Sunday at U.S. and Canadian theaters, according to Rentrak. Where available, the latest international numbers for Friday through Sunday are also included. Final domestic figures will be released Monday.

1. *"Spectre," $35.4 million.*

2. *"The Peanuts Movie," $24.2 million.*

3. *"Love the Coopers," $8.4 million.*

4. *"The Martian," $6.7 million.*

5. *"The 33," $5.8 million.*



2

5

6. *“Goosebumps,” $4.7 million.*

7. *“Bridge of Spies,” $4.3 million.*

8. *“Prem Ratan Dhan Payo,” $2.4 million.*

9. *“Hotel Transylvania 2,” $2.4 million.*

10. *“The Last Witch Hunter,” $1.5 million.*



8

10



US ADVISED TO EXAMINE 'HACK BACK' OPTIONS AGAINST CHINA

The United States remains ill-prepared to combat state-backed cyber intrusions from China and lawmakers should look at whether U.S.-based companies be allowed to 'hack back' to recover or wipe stolen data, a congressional advisory body said Tuesday.

That's the primary recommendation of this year's report by the U.S.-China Economic and Security Review Commission that examines the national security implications of the relationship between the two world powers.

The report says China's increasing use of cyber espionage has already cost U.S. companies tens of billions of dollars in lost sales and expenses in repairing the damage from hacking. It says in many cases, stolen trade secrets have been turned over to Chinese government-owned companies.

The commission, typically very critical of Beijing, is appointed by both parties in Congress but makes no bones about the "inadequate" U.S. response, saying China has also infiltrated a wide swath of U.S. government computer networks.

"The United States is ill-prepared to defend itself from cyber espionage when its adversary is determined, centrally coordinated, and technically sophisticated, as is the CCP and China's government," the report says, referring to the ruling Chinese Communist Party.

Cybersecurity has become an increasingly sore point in U.S.-China relations. It remains to be seen whether a September agreement between President Barack Obama and China's President Xi Jinping that neither government will support commercial cyber theft will lead to an easing in the tensions.

Among the most serious breaches in the past year in which China is suspected was against the Office of Personnel Management, revealed in April. Hackers gained access to the personal information of more than 22 million U.S. federal employees, retirees, contractors and others, and millions of sensitive and classified documents.

"The Chinese government appears to believe that it has more to gain than to lose from its cyber espionage and attack campaign. So far, it has acquired valuable technology, trade secrets, and intelligence. The costs imposed have been minimal compared to the perceived benefit. The campaign is likely to continue and may well escalate," says the report.

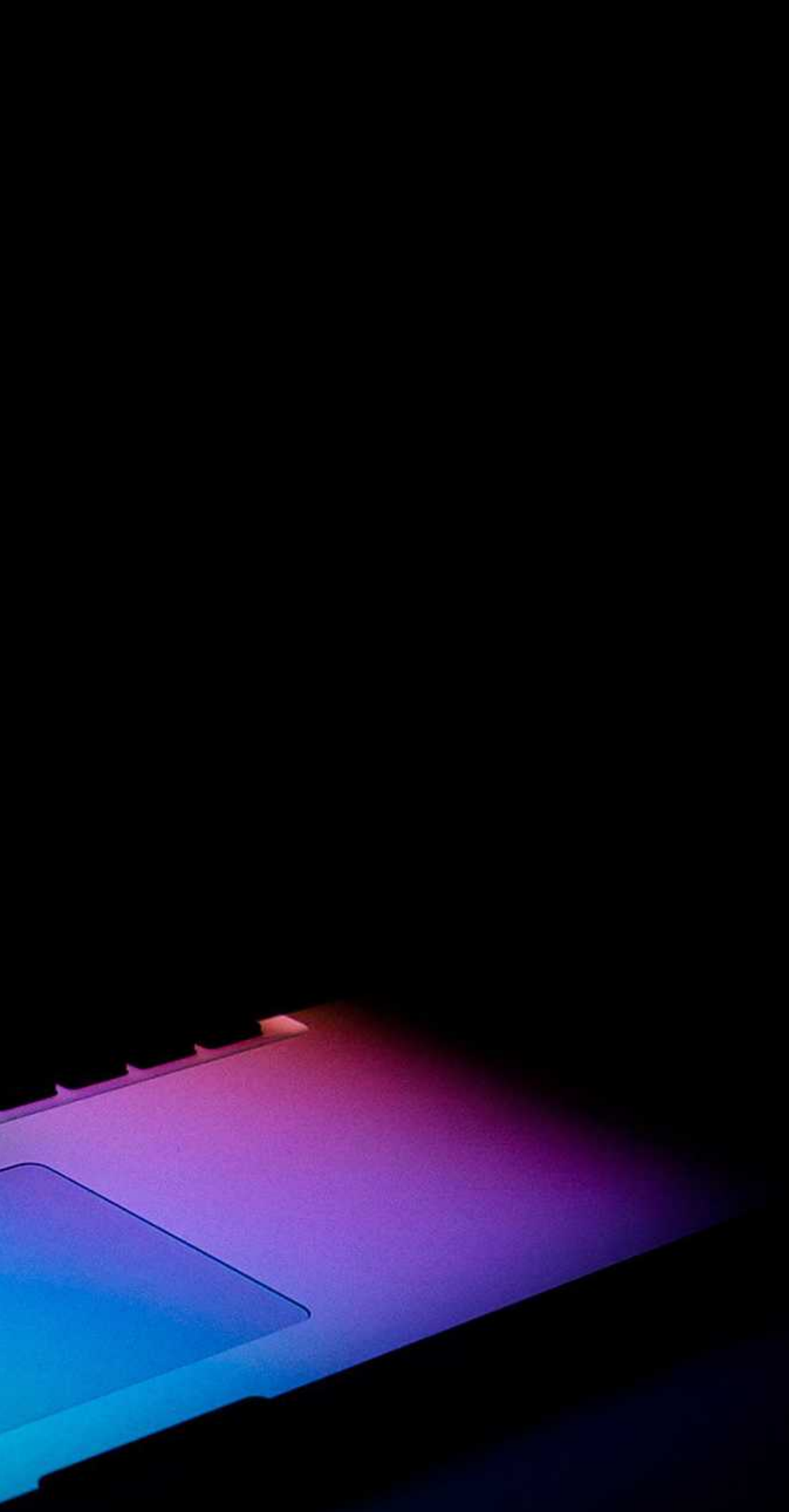
China describes itself as a victim of hacking and says that is combating cybercrimes. It denied involvement in the OPM hack.



Image: Kim Kyung Hoon







The commission's report says U.S. law does not allow retaliatory cyberattacks by private citizens and corporations, nor does it appear to allow 'hack backs' to recover, erase or alter stolen data in offending computer networks. It says international law has not kept up with developments in cyber warfare, and recommends Congress assess the coverage of U.S. law in this regard.

Congress should also study the feasibility of having a foreign intelligence cyber court to hear evidence from U.S. victims of cyberattacks and decide whether the U.S. government might hack back on a victim's behalf, the report says.

Richard Bejtlich, chief security strategist at FireEye, a U.S. network security company, said there wouldn't be much appetite in the private sector for this. He said it should be the U.S. government that conducts any counter intrusions, but publicly available information indicates that offensive cyber activities by the U.S. to date have been focused on intelligence targets and centers of state power rather than targeting groups that are hacking the private sector.

"We need to get our hackers to go after their hackers to put pressure on them and disrupt their operations," Bejtlich said. "We need to start with more government pressure, not put the private sector in that role."

The commission's report, which surveys a wide range of economic and security developments in China, also criticizes its censorship and restrictions on Internet content and the impact that has on U.S. businesses. The report accused China of a "government effort to wall off the fastest-growing market in the world for digital commerce."



TOP 10 SONGS

HELLO
Adele

SORRY
Justin Bieber

HOTLINE BLING
Drake

WHAT DO YOU MEAN?
Justin Bieber

HALO (THE VOICE PERFORMANCE)
Jordan Smith

TENNESSEE WHISKEY
Chris Stapleton

WHEN I'M GONE
Joey+Rory

EX'S & OH'S
Elle King

I'LL SHOW YOU
Justin Bieber

LOVE YOU GOODBYE
One Direction



TOP 10 ALBUMS

PURPOSE (DELUXE)
Justin Bieber

25
Adele

TRAVELLER
Chris Stapleton

MADE IN THE A.M. (DELUXE EDITION)
One Direction

SAWYER FREDERICKS - EP
Sawyer Fredericks

MR. MISUNDERSTOOD
Eric Church

A HEAD FULL OF DREAMS
Coldplay

WHAT'S INSIDE: SONGS FROM WAITRESS
Sara Bareilles

DAMN COUNTRY MUSIC (DELUXE EDITION)
Tim McGraw

1989
Taylor Swift



TOP 10 MUSIC VIDEOS

HELLO
Adele

HOTLINE BLING
Drake

WATCH ME (WHIP / NAE NAE)
Silentó

FOCUS
Ariana Grande

WILDEST DREAMS
Taylor Swift

SORRY
Justin Bieber

BETTER WHEN I'M DANCIN'
Meghan Trainor

WHEN I'M GONE
Joey+Rory

PERFECT
One Direction

WHAT DO YOU MEAN?
Justin Bieber





TOP 10 TV SHOWS

NOW
The Walking Dead, Season 6

ENTER ZOOM
The Flash, Season 2

CHAOS THEORY
Marvel's Agents of S.H.I.E.L.D., Season 3

FIGHT OR FLIGHT
Supergirl, Season 1

MOMMIE DEAREST
Scream Queens, Season 1

THE GIFT OF THE MAGI
Fargo, Season 2

LIES
The Good Wife, Season 7

WHEN PIRATES PIRATE PIRATES
Limitless, Season 1

ROOM 33
American Horror Story: Hotel, Season 5

PERSECUTE ENVOYS
Blindspot, Season 1





TOP 10 BOOKS

ROGUE LAWYER
John Grisham

THE CROSSING
Michael Connelly

THE PROMISE
Robert Crais

CRIMSON SHORE
Douglas Preston & Lincoln Child

TROUBLEMAKER
Leah Remini & Rebecca Paley

RECKLESS IN LOVE
Bella Andre & Jennifer Skully

SEE ME
Nicholas Sparks

PROMISE TO KEEP
Jessica Wood

THE MARTIAN
Andy Weir

NOVEMBER 9
Colleen Hoover

GIFT GUIDE: 6 WAYS TO GET STREAMING VIDEO TO YOUR BIG SCREEN

Watching video on a phone or personal computer can sometimes feel less than awesome - not to mention kind of lonely, given the limited viewing angle of the small screen.

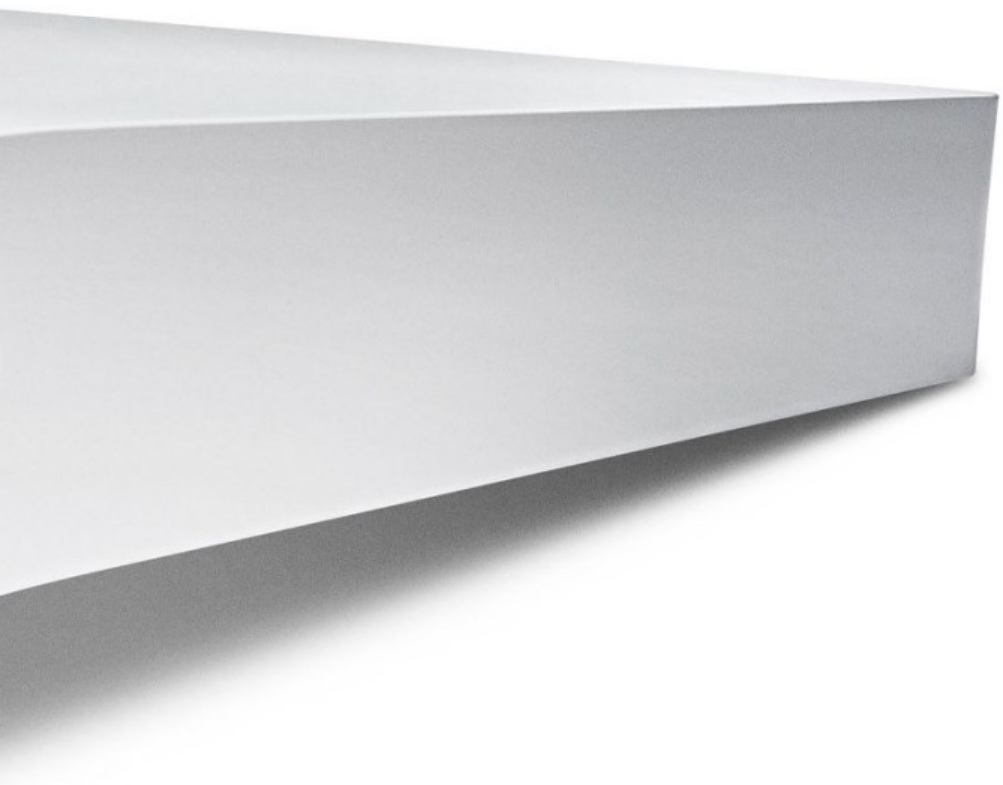
There are plenty of ways to get streaming video onto your big living-room screen. Internet-connected "smart" TVs and gaming consoles such as the Xbox or PlayStation can do the trick. But stand-alone devices tend to offer more features and more video services to choose from.

These six leading devices all stream Netflix and YouTube, and most also handle Hulu, PBS and several others. Only Apple TV has iTunes, while only Roku has both Amazon and Google Play. Whichever device you choose, you'll still need subscriptions to watch most of the 12 services we checked.









TIVO BOLT (starts at $300, plus $15 a month for service after the first year)

The TiVo is first and foremost a digital video recorder, offering many features that cable-company DVRs can't match.

TiVo recordings have many advantages over streaming services such as Hulu. One tap of the remote skips over the entire commercial break for many prime-time shows. Hulu won't let you skip commercials at all unless you pay more. TiVo can also play back shows 30 percent faster using its "QuickMode." Use both, and an hour-long show takes less than 35 minutes.

As a streaming device, though, TiVo is more limited. It offers only four of the 12 leading streaming services we checked - Netflix, Amazon, YouTube and Vudu. Hulu is coming soon. Apps for many specific channels, including HBO and Showtime, are unavailable, nor is baseball's MLB.TV. TiVo figures you can simply record those channels or use your cable company's on-demand service, but that doesn't help if you have only an antenna.

The Bolt offers 75 or 150 hours of recording. A 450-hour TiVo is available for $600, but it's an older model, without QuickMode or commercial-break skipping.

GOOGLE CHROMECAST ($35)

The Chromecast is an odd hybrid - a gateway to relay streaming video from your laptop, phone or tablet to the TV. Choose a video source - say, the Netflix app or website - and make a few taps to "cast" it to the TV. The Chromecast then picks up the video stream directly.

Chromecast doesn't work with every video app, but has 10 of the 12 services we looked for; iTunes and Amazon are no-shows, at least from mobile devices. It has no remote; you control playback through your phone or tablet. The Chromecast is cheap, but it's not as versatile as a stand-alone device.

For music and podcasts, the $35 Chromecast Audio can "cast" to speakers.




chrome

NVIDIA SHIELD ANDROID TV ($200)

The Shield's strength is as a video-game console. It's fast and powerful, and it has a good selection of converted PC games. The device also supports Nvidia's GeForce Now streaming-game subscription. Games run on distant servers, yet feel as though they are directly on the Shield.

The Shield uses Google's Android TV streaming service, which offers eight of our 12 streaming services. There's no Amazon, iTunes or Watch ESPN app. With Chromecast-like casting, you can get Vudu. You can get ESPN with a Sling TV subscription and app.

The Shield is expensive for a streaming TV device, but it's cheaper than a game console. It comes with a game controller.






amazon



AMAZON FIRE TV ($100)

The Fire TV is a great device for streaming video - especially video from Amazon. Video available as part of Amazon's Prime loyalty program integrates nicely. For other services, you must launch an app first. The Fire TV has nine of the 12 services checked; it's missing iTunes, Google Play and Vudu.

The Fire TV is cheap for a full-fledged streaming device. For an even cheaper option, Amazon's $40 Fire TV Stick has fewer features but runs the same services.

ROKU 4 ($130)

Talk about choice. Roku has nearly 3,000 apps to choose from. If there's something you're looking for, however obscure, it's more likely to be on Roku than any other device. Of the dozen services we looked for, iTunes was the only one missing.

Roku joins TiVo, the Shield and Fire TV in supporting super-sharp video in an emerging format known as ultra-high definition, or 4K. Roku goes further in creating a special app to point you to what little 4K content is out there.

Another nice touch: A button on the Roku will make your remote beep if you lose it.

Roku also offers cheaper options with fewer features, all the way down to its $50 Streaming Stick.




OK
NETFLIX
amazon
sling
A
B
ROKU


tv



APPLE TV (starts at $149)

The app store on the new Apple TV has a good selection of video services and games. As with Fire TV and Roku, many of these are casual games, not the hardcore games common on the Shield. Apple is the only device with iTunes, although it currently lacks Google Play, Amazon and Vudu from the 12 services on our list.

Although Apple TV isn't the only gadget here to offer voice search, it does so without interrupting video playback. A slide-up box appears in response to commands for specific titles or actors, as well as general queries for weather, sports or stocks. (Fire TV and the Shield also offer informational voice searches, while Roku is limited to searches for shows and movies.)

Apple TV also offers a range of apps beyond video and games, including Airbnb and Zillow for housing listings and QVC and Gilt for shopping.

Apple still sells its older Apple TV model for $69. That model won't give you voice search or any apps beyond streaming media.

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